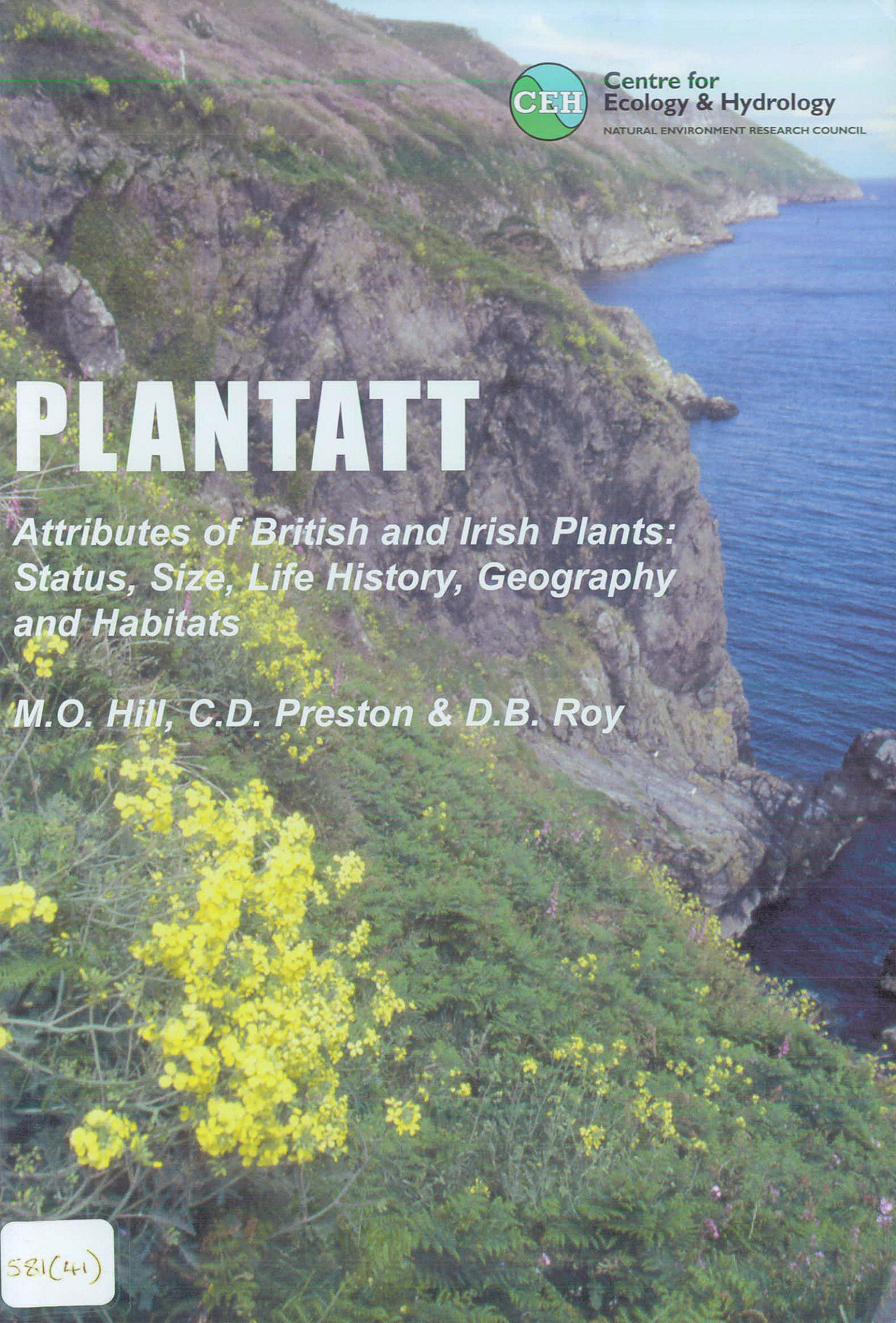
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Attributes of British and Irish Plants:
Status, Size, Life History, Geography
and Habitats
M.O. Hill, C.D. Preston & D.B. Roy

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PLANTATT

Attributes of British and Irish Plants: Status, Size, Life History, Geography and Habitats

for use in connection with the
New atlas of the British and Irish flora

M. O. Hill, C. D. Preston & D. B. Roy
Biological Records Centre
NERC Centre for Ecology and Hydrology

Centre for Ecology and Hydrology
Bush Estate
Penicuik
Midlothian
EH26 0QB

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Cover photograph shows the endemic plant Coincya wrightii *on the cliffs of Lundy (courtesy of Roger Key, English Nature).*

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INTRODUCTION

In the course of our research on geographical distributions and climate change, we have frequently wanted to characterize the plants that constitute the wild flora of Britain and Ireland. Several sources of information were available, including the *Electronic Comparative Plant Ecology* (Hodgson *et al.*, 1994), the Czech clonal plant database *Clopla1 (http://www.butbn.cas.cz/klimes/clopla1.htm)*, the BSBI database *(http://www.bsbi.org.uk/html/database.html)*, the *Ecoflora* database (Fitter & Peat, 1994), and the indicator values of *Ellenberg* (Ellenberg *et al.*, 1991). Inevitably, these sources were not sufficient for our purposes, and we have gradually assembled our own set of attribute data, linked to the database of the Biological Records Centre (BRC).

The establishment of the National Biodiversity Network (NBN) provided an additional stimulus to the assembling of attribute data, offering a suitable platform for online searches for species attributes. Some of the information published here is also available from the NBN gateway *(www.searchnbn.net)*. In 2002, the publication of the *New Atlas of the British and Irish Flora* (Preston, Pearman & Dines, 2002), together with results of a companion project to analyse change (Preston, Telfer *et al.*, 2002), allowed us to complete the dataset that is presented here.

The dataset is partly old and partly new (Table 1). Biogeographic elements and Ellenberg values are taken with few modifications from earlier publications (Preston & Hill, 1997, 1999; Hill *et al.*, 1999). Information that depends directly on the *New Atlas* is either new or (Change Index) is taken from the text of the *New Atlas*. Data on the Broad Habitats of plants are mostly drawn from an unpublished report (Preston *et al.*, 2003). Information on plant height, perennation, life form and clonal growth was assembled from a variety of floras and monographs, with some personal observation; it is a new compilation. Further details of these attributes are provided in the following pages. The attribute categories are tabulated (Tables 2-13), with the numbe of taxa in each category listed in the column 'N='.

Table 1. Attributes, codes and names listed as columns in PLANTATT

Column name	Abbre-viation	Source or other comment
(a) Status and taxonomic		
Taxon name		Name in current flora (Stace, 1997)
Family	Fam	Stace (1997)
Native status	NS	*New Atlas* (Preston *et al.*, 2002)
Conservation status	CS	Cheffings (2004)
Rarity status	RS	Calculated from *New Atlas* data
Change Index	Chg	*New Atlas* (Preston *et al.*, 2002)
(b) Size and life form		
Height (terrestrial)	Hght	Several sources, listed below
Length (aquatic)	Len	Several sources, listed below
Perennation	P1, P2	Mainly Clapham, Tutin & Warburg (1962)
Life form	LF1, LF2	Clapham *et al.* (1962), heavily revised
Woodiness	W	Mainly Clapham *et al.* (1962)
Clonal spread	Clone1, Clone2	Sources are listed below; clone2 is mainly blank
(c) Geography & climate		
Major Biome (European distribution)	E1	Part of biogeographic element according to Preston & Hill (1997)
Eastern limit code	E2	Part of biogeographic element according to Preston & Hill (1997)
Continentality in Europe	C	Preston & Hill (1997) plus additions
Origin of alien taxa	Origin	*New Atlas* (Preston *et al.*, 2002)
Number of 10-km squares in Britain (including Isle of Man)	GB	*New Atlas* (Preston *et al.*, 2002)
Number of 10-km squares in Ireland	IR	*New Atlas* (Preston *et al.*, 2002)
Number of 10-km squares in Channel Islands	CI	*New Atlas* (Preston *et al.*, 2002)
January mean temperature	Tjan	Calculated from *New Atlas* plus climatic data
July mean temperature	Tjul	Calculated from *New Atlas* plus climatic data
Annual precipitation	Prec	Calculated from *New Atlas* plus climatic data
(d) Habitat		
Coastal	Co	Calculated from *New Atlas* plus Ellenberg salt value
Broad Habitats	Br Habitats	Preston *et al.* (2003), plus previously unreported data for aliens
Ellenberg indicator value	L, F, R, N, S	Hill *et al.* (1999)

SPECIES, FAMILIES, STATUS AND CHANGE

Species and families

The list of 1885 taxa includes all native British and Irish species, as well as natives of the Channel Islands not known from Britain or Ireland. There are no species restricted to the Isle of Man. All archaeophyte species are included, plus a number of well-established neophytes. A small number of subspecies, hybrids and aggregate species are also included. The number of taxa has been slightly increased from the 1791 that were listed for Ellenberg indicator values (Hill *et al.*, 1999). Most of the additions are of neophytes, which, following the *New Atlas* (Preston *et al.*, 2002), we now think to be sufficiently common or potentially interesting to be included.

The names of families have been abbreviated to four letters and follow Stace (1997).

Native/alien status

Species of uncertain status are classified as 'native or alien'. Introduced species have been classified as *archaeophytes, neophytes* and *casuals* (Preston *et al.*, 2002). Both archaeophytes and neophytes are introduced species which are present in the wild as naturalized populations, that is they are spreading vegetatively or reproducing effectively by seed. An archaeophyte is a plant that became naturalized before AD 1500. A neophyte is one that was first introduced after 1500, or was only present as a casual before 1500 and is naturalized now only because it was reintroduced subsequently. In contrast to archaeophytes and neophytes, a casual is a plant that is present only as populations which fail to persist in the wild for periods of more than approximately five years. Such a species is dependent on constant reintroduction (Macpherson *et al.*, 1996).

Hybrids between two alien parents which were introduced to the wild as hybrids (e.g. *Crocosmia* x *crocosmiiflora, Euphorbia* x *pseudovirgata*) are classified as neophytes. Only hybrids between which have been formed spontaneously in the wild between two alien parents are classified as 'AX'.

Conservation status

The conservation status of plants is coded according to the system proposed by Hodgetts, Palmer & Wigginton (1996); see also Palmer *et al.* (1997). This status is an assessment of threat rather than rarity, although closely related to rarity in that only species known at the time of the assessment in less than 101 10-km squares have been allocated to one of the categories listed. The status listed is that given by Cheffings (2004). This replaces the statuses provided in the *Red Data Book* (Wigginton, 1999) and *Scarce plants in Britain* (Stewart, Pearman & Preston, 1994). Cheffings assigns a conservation status to native species and archaeophytes, with only a few exceptions. PLANTATT cannot be used to provide a complete list of threatened taxa as many subspecies listed by Cheffings are not treated separately by us.

Rarity status

Rarity status is based on counts of the number of 10-km squares in Britain and the Isle of Man in which the plant was recorded as a native in the period 1987-1999. Rare plants are those recorded in 1-15 10-km squares during this period; scarce plants are recorded in 16-100. The thresholds were those that were used in defining rare and scarce species for the *Red Data Book* and *Scarce plants*. Rarity status, however, is solely a measure of rarity rather than threat, and is based on data from the *New Atlas*. Cheffings assigns a conservation status to native species and archaeophytes, with only a few exceptions. PLANTATT cannot be used to provide a complete list of threatened taxa as many subspecies listed by Cheffings are not treated separately by us.

Alien species have by definition no native records, and therefore are not given a rarity status.

Table 2. Native status, Conservation status and Rarity status

Attribute and codes	N=	Explanation
(a) Native status		
AC	12	Alien casual; many are crop plants
AN	259	Neophyte, alien introduced after 1500
AR	151	Archaeophyte, alien introduced before 1500
AX	1	Spontaneous hybrid between two alien parents
N	1362	Native, not endemic
NA	46	Native or alien (native status doubtful)
NE	47	Native endemic
NH	7	Spontaneous hybrid between two native parents
(b) Conservation status		
CR	20	Critically endangered
DD	1	Data deficient
EN	34	Endangered
EW	4	Extinct in the wild
EX	10	Extinct
VU	119	Vulnerable
(c) Rarity status		
n	933	Present, not rare or scarce
r	234	Rare (1-15 10-km squares in Britain, 1987-1999)
s	254	Scarce (16-100 10-km squares in Britain, 1987-1999)
o	27	Absent from Britain and Isle of Man as a native, but native in Ireland or the Channel Islands
x	12	Apparently extinct (not recorded since 1986)
i	2	Insufficient data available to assess rarity
(blank)	423	Alien taxa
(d) Change Index		
(values)		Change between 1930-1960 and 1987-1999

Change Index

The Change Index (Telfer *et al.*, 2002) measures the relative magnitude of change, comparing the period 1930-1960 with 1987-1999. It is explained in more detail in the Appendix. It ranges from -4.78 for the critically endangered *Galium tricornutum* to 4.70 for the much more frequently recorded *Prunus laurocerasus*. The Change Index has not been calculated for species not included in the first *Atlas of the British Flora* (Perring & Walters, 1962). Consequently, several aliens such as *Amsinckia micrantha* and *Crassula helmsii*, which have increased spectacularly in the intervening period, lack a value for the Change Index.

SIZE AND LIFE HISTORY ATTRIBUTES

Height and length

Heights, measured in centimetres, are given for terrestrial (or emergent) plants and lengths (cm) for submerged aquatic plants. A few amphibious or emergent plants such as *Persicaria amphibia* are scored for both height and length.

These values are intended as a general indication of the size of the plant. For procumbent plants, heights are an indication of the height of the less procumbent shoots. For scapose plants and ferns, heights are not stem lengths but leaf lengths. Likewise, lengths for isoetids (i.e. linear-leaved rosette-forming rooted aquatics) are in fact leaf lengths. For example *Lobelia dortmanna* has length 4 cm, which is certainly not the length of the scape.

Height and length values were drawn from a variety of sources, which are detailed in the Appendix.

Perennation

The categories are annual, biennial and perennial. Biennial is used as a shorthand to denote also monocarpic perennials. For example *Carlina vulgaris* and *Heracleum mantegazzianum* normally take several years to reach maturity but are categorized as biennials. The sources of data for perennation are mostly the same as those used for height and length. In a few cases (e.g. *Linum catharticum*), we have relied on personal communication and scientific papers rather than floras.

A relatively small number of species fall into more than one of these categories. The secondary category is intended to be either less frequent or equally frequent. Thus *Poa annua* has primary perennation category P1=annual and secondary category P2 = perennial. Several floras suggest that *Cardamine flexuosa* and *Montia fontana* can be annual, biennial or perennial. These have been coded as P1 = **p**, P2 = **a** and P1 = **a**, P2 = **p** respectively.

Life form

The Raunkiaer system of life forms was set out by Clapham, Tutin & Warburg (1962), who listed life forms for most species. Their assignments provide an excellent starting point but contain numerous inconsistencies. Life forms have been fully revised for PLANTATT. Following German and Swiss authors (e.g. Lindacher, 1995), the category of helophytes or marsh plants has been omitted. The majority of these can grow in places that are not permanently flooded in winter. The position of the overwintering buds in such situations is taken as a guide to their life form. An additional life form of annual water plants has been added, so that the category therophytes are all terrestrial.

As with perennation, a secondary life form is given for some species. Details of how life forms were assigned and the relation of life form to plant height are given in the Appendix.

Woodiness

Woodiness is an attribute that applies to some chamaephytes, nanophanerophytes and phanerophytes. All other life forms are treated as herbaceous. Three categories are recognized, woody, semi-woody and herbaceous. Although we have been guided in part by Clapham, Tutin & Warburg (1962), we have not hesitated to express our own opinions where these differ.

Table 3. Size and life history attributes other than clonality; counts of primary attributes are in the column N1=, counts of secondary attributes are in N2=

Attribute or code	N1=	N2=	Explanation
(a) Height (cm)	*Hght*		Height (leaf length for scapose plants and ferns)
(b) Length (cm)	*Len*		Length (aquatic plants; leaf length for isoetids)
(c) Perennation	*P1*	*P2*	*Primary and secondary type of perennation*
a	455	14	Annual
b	96	14	Biennial, including monocarpic perennials
p	1334	42	Perennial
(d) Life form	*LF1*	*LF2*	*Primary and secondary life form (see Table A1)*
Ch	148	24	Chamaephyte
Gb	32		Bulbous geophyte
Gn	134	11	Non-bulbous geophyte (rhizome, corm or tuber)
hc	811	50	Hemicryptophyte
Hy	124	34	Perennial hydrophyte (perennial water plant)
Hz	25	1	Annual hydrophyte (aquatic therophyte)
Ph	108	15	Mega-, meso- and microphanerophyte
Pn	73	21	Nanophanerophyte
Th	430	14	Therophyte (annual land plant)
(e) Woodiness	*W*		
h	1651		Herbaceous
sw	27		Semi-woody
w	207		Woody

Clonality

Clonal growth is defined here as vegetative reproduction combined with lateral spread. Like perennation, clonality may have more than one value for a given species, reflecting the various ways in which clonal growth may occur. In some species there are varieties with clonal growth (*Arrhenatherum elatius* var. *bulbosum*, *Caltha palustris* var. *radicans*) while the normal form is not markedly clonal. In these two species, the variety with clonal growth is less frequent than the type variety, so that both plants are given Clone1 = **0** (not spreading clonally) as the primary state, whereas Clone2 = **DRg** and **Stol2** respectively. Two species with proliferous inflorescences really ought to have been assigned to three categories, namely *Juncus bulbosus* (**Node2**, **Irreg** and omitted **DRi**) and *Butomus umbellatus* (**Rhiz2**, **DRg** and omitted **DRi**). It did not seem worth having a third column just for these two, so the inflorescence character has been omitted.

Table 4. Categories of clonality; counts of primary attributes are in the column N1=, counts of secondary attributes are in N2=

Attribute or code	N1=	N2=	Explanation
(f) Clonality	*Clone1*	*Clone2*	
0	1228		Little or no vegetative spread
0gr	25		Tussock-forming graminoid, may slowly spread
0tb	26		Tuberous or bulbous, slowing cloning by offsets
DRa	20	10	Detaching ramets above ground (often axillary)
DRg	4	16	Detaching ramets at or below ground
DRi		11	Detaching ramets on inflorescence
DRl		1	Detaching ramets on leaves *(Hammarbya)*
DRp		1	Detaching ramets on prothallus *(Trichomanes)*
Frag	7		Fragmenting as part of normal growth
Irreg	38	17	Irregularly fragmenting (mainly water plants)
Leaf		1	Plantlets formed on leaves *(Cardamine pratensis)*
Node1	19	20	Shortly creeping and rooting at nodes
Node2	76	9	Extensively creeping and rooting at nodes
Rhiz1	152	8	Rhizome shortly creeping
Rhiz2	209	15	Rhizome far-creeping
Root	37	3	Clones formed by suckering from roots
Stol1	14		Shortly creeping, stolons in illuminated medium
Stol2	26	5	Far-creeping by stolons in illuminated medium
Tip	5		Tip rooting (the stems often turn downwards)

The following comments may be helpful in distinguishing the clonal categories.

1. The category **0gr** is rather poorly defined. If a perennial graminoid (grass, sedge or rush) is repeatedly mown or heavily grazed, it may gradually form clones, even though this is not the normal condition.

2. The category **0tb** assumes that the ground is little disturbed. If there is regular disturbance, the offsets will be dispersed to new sites and the plant would then be indicated as **DRg** (detaching ramets at or below ground).

3. The small category **Frag** applies to duckweeds and *Azolla*.

4. The categories **Node** (creeping and rooting at nodes), **Rhiz** (rhizomatous or with subterranean stolons) and **Stol** (stoloniferous in the illuminated medium, either air or water) are divided into two, according to whether they spread a short distance in a season or are far-creeping. For rhizomatous plants, a rule of thumb is that a species whose new shoots arise at a distance less than a quarter of the height of the plant is shortly creeping,

while those that spread further are deemed to be far-creeping. Analogous distinctions are made for **Node** and **Stol**.

5. The distinction between **Node** and **Stol** is that in **Node** the horizontal or decumbent stem extends with indeterminate growth, rooting at the leafy nodes and not forming a new stem axis at each rooted position. In **Stol**, a new stem axis normally arises at the point of rooting, or the stolon is determinate, bending upwards and not progressing with indeterminate growth.

6. In the tip-rooting category, **Tip**, leafy stems that are not obviously stolons turn down at the apex and root there.

GEOGRAPHIC ATTRIBUTES

European and wider distributions, and continentality

The categorization of taxa to biogeographic elements and their designation as 'continental' or otherwise (Table 5) follow Preston & Hill (1997), with minor revisions and the addition of the hyperoceanic category from a subsequent paper (Preston & Hill, 1999). Elements are provided for native species and some archaeophytes; for archaeophytes the classification describes the archaeophytic range. In addition, some but not all alien species originating in Europe have also been assigned to biogeographic elements for PLANTATT and designated as continental. Geographic attributes are not provided for some hybrids.

Table 5. European and wider distribution, and continentality

Attribute and codes	N=	Explanation
(a) E1		*Biogeographic element, major biome*
1	82	Arctic-montane (main distribution in tundra or above tree-line in temperate mountains)
2	39	Boreo-arctic montane (in tundra and coniferous forest zones)
3	22	Wide-boreal (from temperate zone to tundra)
4	120	Boreal-montane (main distribution in coniferous forest zone)
5	244	Boreo-temperate (in conifer and broadleaf zones)
6	45	Wide-temperate (from Mediterranean region to coniferous forest zone)
7	621	Temperate (in broadleaf forest zone)
8	312	Southern-temperate (in Mediterranean region and broadleaf forest zones)
9	136	Mediterranean-atlantic (in Mediterranean region, and extending north in atlantic zone of temperate Europe)
0	15	Mediterranean (native range of some aliens)
(b) E2		*Biogeographic element, eastern limit category*
0	17	Hyperoceanic, with a western distribution in atlantic zone
1	207	Oceanic (in atlantic zone of Europe, not or scarcely reaching east to Sweden, Germany or S Spain)
2	148	Suboceanic (extending east to Sweden, C Europe or Italy)
3	577	European (extending to more continental parts of Europe but not to Siberia)
4	308	Eurosiberian (eastern limit between 60°E and 120°E)
5	114	Eurasian (extending across Asia to east of 120°E)
6	265	Circumpolar (in Europe, Asia and N America)
(c) C		*Continentality*
c	111	Species marked c are 'continental', i.e. they are rare in the atlantic zone of Europe but commoner further east

Native distribution of species alien in Britain and Ireland

The native distribution of aliens (Table 6) is taken from the *New Atlas*. This information is provided for neophytes and some archaeophytes. In Table 6, taxa present in two areas are included in both totals but taxa are excluded from the totals if they are only doubtfully native in the relevant area.

Table 6. Native distribution of species alien in Britain and Ireland

Code	N=	Explanation
Am	24	North America
Am4	22	Western North America
Am6	5	Eastern North America
As	10	Asia east of 60°E
As1	24	Asia between 60°E and 120°E
As2	9	Asia E of 120°E
Aus	3	Australia
Crop	15	Crop plant, does not have a native range
Eur	149	Europe
Gard	13	Garden origin, does not have a native range
NHem	6	N Hemisphere (Europe, Asia and North America)
NZ	4	New Zealand
SAf	5	Southern Africa
SAm	20	South America and/or Central America
Unk	10	Unknown

Counts of 10-km squares in the New Atlas

For each taxon, the number of 10-km squares in Britain, Ireland and the Channel Islands is enumerated (Table 7). For most natives, only the native distribution has been counted (blue dots in the *New Atlas*). For the small number of native species in which it proved impossible even to attempt to delimit the native range in the *New Atlas*, the count is for all squares. For alien taxa, all squares with records have been counted. Squares have been counted without regard to date, so that *Otanthus maritimus*, extinct in Britain, is recorded from 23 squares there.

Table 7. Counts of squares and climatic means

Attribute	Min	Max	Explanation
(a) Counts			*Counts of 10-km squares*
GB	0	2805	Great Britain and Isle of Man
IR	0	985	Ireland
CI	0	14	Channel Islands
(b) Climatic means			*Mean values for 10-km squares*
Tjan	-1.3	7.0	January mean temperature (°C)
Tjul	10.4	17.0	July mean temperature (°C)
Prec	553	3218	Annual precipitation (mm)

Climatic means

Climatic values for plants were calculated as the mean climate of the 10-km squares where they occur in Britain, Ireland and the Channel Islands, averaging over the squares enumerated for the counts. Climate data for 10-km squares were taken from baseline climate summaries of the UK Climate Impacts Programme (Hulme & Jenkins, 1998). These baseline summaries were constructed by interpolation of daily weather measurements from individual met stations, averaged over the 30-year period 1961-1990 (Barrow *et al.*, 1993).

HABITAT ATTRIBUTES

Coastal species

Species are deemed to be coastal if 80% of occupied squares are on the coast and if they depend on coastal habitat. Most coastal species have Ellenberg salt values (S values, defined below) greater than 0. Those with Ellenberg S = 0 were scrutinized carefully to ascertain whether their habitat was indeed coastal.

Broad Habitats

The preferences of species for Broad Habitats of the UK BAP are listed in the column labelled *Br Habitats*. Species' main habitat(s) are listed. No species is deemed to have a preference for more than four habitats. Minor habitats are ignored. For more information about Broad Habitats and species' preferences, refer to the Appendix.

Table 8. Coastal species and preferences for Broad Habitats

Attribute and codes	N=	Explanation
(a) Co		*Coastal species*
Co	145	At least 80% of occupied squares contain sea at high tide
(b) Br Habs		*Broad Habitats*
1	310	Broadleaved, mixed and yew woodland
2	32	Coniferous woodland
3	543	Boundary and linear features (eg hedges, roadsides, walls)
4	198	Arable and horticultural (includes orchards, excludes domestic gardens)
5	22	Improved grassland
6	163	Neutral grassland (includes coarse *Arrhenatherum* grassland)
7	218	Calcareous grassland (includes lowland and montane types)
8	89	Acid grassland (includes non-calcareous sandy grassland)
9	10	Bracken
10	83	Dwarf shrub heath (cover of dwarf shrubs at least 25%)
11	254	Fen, marsh and swamp (not wooded; includes flushes, rush-pastures, springs and mud communities)
12	41	Bog (on deep peat; includes bog pools as well as acid lowland valley mires on slightly shallower peat)
13	174	Standing water and canals
14	149	Rivers and streams
15	103	Montane habitats (acid grassland and heath with montane species)
16	292	Inland rock (heterogeneous - includes quarries, limestone pavement, cliffs, screes and skeletal soils over rock)
17	231	Built-up areas and gardens
18	74	Supralittoral rock (does not include maritime grassland)
19	135	Supralittoral sediment (strandlines, shingle, coastal dunes)
21	65	Littoral sediment (includes saltmarsh and saltmarsh pools)
23	1	Inshore sublittoral sediment (only *Zostera marina)*

Ellenberg's indicator values

Ellenberg defined seven major scales, of which five are presented here. The two that are omitted, T (temperature) and K (continentality), correspond quite closely to the major biome and eastern limit categories defined for European distributions by Preston & Hill (1997). Neither T nor K values are satisfactory in an oceanic climate such as that of Britain; those for K are particularly unreliable, especially as Ellenberg's definition was geographical rather than climatic.

The five remaining scales have values defined in the tables that follow. The values are based on those of Ellenberg *et al.* (1991). They are mostly reproduced from a previous publication (Hill *et al.*, 1999), with some additions because of the extra species included here. A few example species are given for each value, by way of explanation.

Light values (L)

The full range of Ellenberg values for light (Table 9) is not represented in the British flora. For canopy trees, light values refer to the tolerance of the sapling stage of the life cycle.

Table 9. Ellenberg values for light (L)

Code	N=	Explanation
1	0	Plant in deep shade (no examples for Britain or Ireland)
2	4	Between 1 and 3 *(Epipogium aphyllum, Neottia nidus-avis, Trichomanes speciosum)*
3	20	Shade plant, mostly less than 5% relative illumination, seldom more than 30% illumination when trees are in full leaf *(Galium odoratum, Listera cordata, Mercurialis perennis)*
4	70	Between 3 and 5 *(Circaea lutetiana, Lamiastrum galeobdolum, Poa nemoralis)*
5	120	Semi-shade plant, rarely in full light, but generally with more than 10% relative illumination when trees are in leaf *(Carex pendula, Hyacinthoides non-scripta, Primula vulgaris)*
6	213	Between 5 and 7 *(Anthriscus sylvestris, Digitalis purpurea, Teucrium scorodonia)*
7	680	Plant generally in well lit places, but also occurring in partial shade *(Arrhenatherum elatius, Carex flacca, Poa trivialis, Vicia cracca)*
8	576	Light-loving plant rarely found where relative illumination in summer is less than 40% *(Cardamine hirsuta, Orchis morio, Thymus polytrichus, Vaccinium oxycoccus)*
9	202	Plant in full light, found mostly in full sun *(Aster tripolium, Melilotus albus, Poa compressa, Primula farinosa)*

Moisture values (F)

Unlike the other Ellenberg values, moisture is on a scale of 1 to 12 (Table 10). We use the abbreviation F from the German Feuchtigkeit.

Table 10. Ellenberg values for moisture (F)

Code	N=	Explanation
1	3	Indicator of extreme dryness, restricted to soils that often dry out for some time *(Corynephorus canescens, Helianthemum apenninum, Koeleria vallesiana)*
2	28	Between 1 and 3 *(Clinopodium acinos, Saxifraga tridactylites, Sedum acre)*
3	168	Dry-site indicator, more often found on dry ground than in moist places *(Asplenium trichomanes, Centaurea scabiosa, Spergularia rubra)*
4	378	Between 3 and 5 *(Arctium minus, Helictotrichon pratense, Iris foetidissima, Thymus polytrichus)*
5	492	Moist-site indicator, mainly on fresh soils of average dampness *(Anthriscus sylvestris, Euphorbia amygdaloides, Hyacinthoides non-scripta, Solanum nigrum)*
6	226	Between 5 and 6 *(Agrostis stolonifera, Empetrum nigrum, Rumex crispus)*
7	141	Dampness indicator, mainly on constantly moist or damp, but not on wet soils *(Carex ovalis, Dactylorhiza maculata, Pulicaria dysenterica, Ranunculus repens)*
8	170	Between 7 and 9 *(Cardamine pratensis, Equisetum telmateia, Phalaris arundinacea, Schoenus nigricans)*
9	126	Wet-site indicator, often on water-saturated, badly aerated soils *(Drosera rotundifolia, Myosotis scorpioides, Vaccinium oxycoccus, Viola palustris)*
10	64	Indicator of shallow-water sites that may lack standing water for extensive periods *(Alisma plantago-aquatica, Carex limosa, Ranunculus lingua, Typha latifolia)*
11	34	Plant rooting under water, but at least for a time exposed above, or plant floating on the surface *(Lemna minor, Nuphar lutea, Sagittaria sagittifolia, Schoenoplectus lacustris)*
12	55	Submerged plant, permanently or almost constantly under water *(Isoetes lacustris, Potamogeton crispus, Ranunculus circinatus, Zostera marina)*

Reaction (R)

Reaction (Table 11) refers to environmental acidity, which would ordinarily be measured by pH. Except for water plants, R values reflect preferences for soil acidity.

Table 11. Ellenberg values for reaction (R)

Code	N=	Explanation
1	10	Indicator of extreme acidity, never found on weakly acid or basic soils (*Andromeda polifolia, Lycopodium clavatum, Rubus chamaemorus, Ulex minor*)
2	50	Between 1 and 3 (*Agrostis curtisii, Calluna vulgaris, Drosera rotundifolia, Polygala serpyllifolia*)
3	61	Acidity indicator, mainly on acid soils, but exceptionally also on nearly neutral ones (*Agrostis vinealis, Dactylorhiza maculata, Galium saxatile, Pteridium aquilinum*)
4	127	Between 3 and 5 (*Agrostis capillaris, Carex panicea, Juncus effusus, Teucrium scorodonia*)
5	227	Indicator of moderately acid soils, only occasionally found on very acid or on neutral to basic soils (*Cardamine pratensis, Cirsium palustre, Rubus idaeus, Ulex europaeus*)
6	412	Between 5 and 7 (*Ammophila arenaria, Carex sylvatica, Lolium perenne, Ranunculus* ficaria)
7	698	Indicator of weakly acid to weakly basic conditions; never found on very acid soils (*Agrimonia eupatoria, Atriplex prostrata, Nuphar lutea, Phleum pratense*)
8	279	Between 7 and 9 (*Artemisia vulgaris, Carduus nutans, Iris foetidissima, Viola hirsuta*)
9	21	Indicator of basic reaction, always found on calcareous or other high-pH soils (*Bunium bulbocastanum, Clinopodium calamintha, Dryopteris submontana, Primula farinosa*)

Nitrogen (N)

Nitrogen values (Table 12) are in fact a general indication of preference for soil fertility. They are closely correlated with the stress values of Grime (1979, 2001), low N values corresponding to plants with high stress tolerance (Grime *et al.*, 1997) and vice-versa.

Table 12. Ellenberg values for nitrogen (N)

Code	N=	Explanation
1	84	Indicator of extremely infertile sites (*Agrostis curtisii, Clinopodium acinos, Drosera rotundifolia, Rubus chamaemorus*)
2	323	Between 1 and 3 (*Aira praecox, Carex panicea, Linum catharticum, Scabiosa columbaria*)
3	286	Indicator of more or less infertile sites (*Centaurea scabiosa, Galium saxatile, Pimpinella saxifraga, Teucrium scorodonia*)
4	245	Between 3 and 5 (*Agrostis capillaris, Cirsium palustre, Plantago lanceolata, Primula vulgaris*)
5	342	Indicator of sites of intermediate fertility (*Angelica sylvestris, Digitalis purpurea, Iris foetidissima, Trifolium pratense*)
6	319	Between 5 and 7 (*Cirsium arvense, Glyceria fluitans, Poa trivialis, Rumex crispus*)
7	223	Plant often found in richly fertile places (*Atriplex prostrata, Epilobium hirsutum, Stellaria media, Typha latifolia*)
8	55	Between 7 and 9 (*Beta vulgaris, Galium aparine, Lamium album, Urtica dioica*)
9	8	Indicator of extremely rich situations, such as cattle resting places or near polluted rivers (*Arctium lappa, Artemisia absinthium, Hyoscyamus niger, Rumex obtusifolius*)

Salt tolerance (S)

Values for salt tolerance (Table 13) start at zero, corresponding to no tolerance of salt.

Table 13. Ellenberg values for salt tolerance (S)

Code	N=	Explanation
0	1605	Absent from saline sites; if in coastal situations, only accidental and non-persistent if subjected to saline spray or water (85% of the flora)
1	116	Slightly salt-tolerant species, rare to occasional on saline soils but capable of persisting in the present of salt (includes dune and dune-slack species where the ground water is fresh but where some inputs of salt spray are likely) *(Calystegia sepium, Chenopodium album, Oenanthe crocata, Sedum anglicum)*
2	28	Species occurring in both saline and non-saline situations, for which saline habitats are not strongly predominant *(Atriplex prostrata, Elytrigia repens, Phragmites australis, Rumex crispus)*
3	68	Species most common in coastal sites but regularly present in freshwater or on non-saline soils inland (includes strictly coastal species occurring in sites such as cliff crevices and sand dunes that are not obviously salt-affected) *(Cakile maritima, Cochlearia officinalis, Juncus gerardii, Spergularia rupicola)*
4	28	Species of salt meadows and upper saltmarsh, subject to at most only very occasional tidal inundation (includes species of brackish conditions, i.e. of consistent but low salinity) *(Atriplex littoralis, Elytrigia atherica, Glaux maritima, Triglochin maritimum)*
5	19	Species of the upper edge of saltmarsh, where not inundated by all tides (includes obligate halophytes of cliffs receiving regular salt spray) *(Aster tripolium, Crithmum maritimum, Puccinellia maritima, Suaeda vera)*
6	6	Species of mid-level saltmarsh *(Atriplex portulacoides, Cochlearia anglica, Limonium vulgare)*
7	3	Species of lower saltmarsh *(Spartina anglica, Suaeda maritima)*
8	4	Species more or less permanently inundated in sea water *(Zostera* spp.)
9	8	Species of extremely saline conditions, in sites where sea water evaporates, precipitating salt *(Salicornia europaea* agg.; these could equally well be treated as species of the lower marsh)

LISTING OF SPECIES WITH THEIR ATTRIBUTES

The listing of species with their attributes has 32 columns. Codes used in these columns are set out in the foregoing tables. The short and full names of the columns are given here (Table 14), as are the pages on which the tables of codes appear.

Table 14. Plant attributes cross-referenced to tables and page numbers where these are described more fully

Short name	Attribute	Table No	Page
Taxon name	Name in New Atlas	1	2
Fam	Family (4-letter abbreviation)	1	2
NS	Native status	2	4
CS	Conservation status	2	4
RS	Rarity status	2	4
Chg	Change Index	2	4
Hght	Height in cm (terrestrial)	3	6
Len	Length in cm (aquatic)	3	6
P1	Perennation - primary	3	6
P2	Perennation - secondary	3	6
LF1	Life form - primary	3	6
LF2	Life form - secondary	3	6
W	Woodiness	3	6
Clone 1	Clonal spread - primary	4	7
Clone 2	Clonal spread - secondary	4	7
E1	Major Biome (European distribution)	5	9
E2	Eastern limit code	5	9
C	Continentality in Europe	5	9
Origin	Origin of alien taxa	6	10
GB	Number of 10-km squares in Britain (including Isle of Man)	7	11
IR	Number of 10-km squares in Ireland	7	11
CI	Number of 10-km squares in Channel Islands	7	11
Tjan	January mean temperature	7	11
Tjul	July mean temperature	7	11
Prec	Annual precipitation	7	11
Co	Coastal	8	13
Br Habitats	Broad Habitats	8	13
L	Ellenberg indicator value - light	9	14
F	Ellenberg indicator value - moisture	10	15
R	Ellenberg indicator value - reaction	11	16
N	Ellenberg indicator value - nitrogen	12	16
S	Ellenberg indicator value - salt tolerance	13	17

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Acaena novae-zelandiae	Rosa	AN				11		p		Ch		w	Node2					Aus, NZ	82	9	0	3.8	15.2	831		3, 10, 18, 19	8	3	6	3	0
Acer campestre	Acer	N		n	0.35	1500		p		Ph		w	0		7	3			1389	0	0	3.6	15.7	839		1, 3	5	5	7	6	0
Acer platanoides	Acer	AN				3000		p		Ph		w	0		7	3	c	Eur	1419	43	5	3.4	15.2	903		1, 3, 17	4	5	7	7	0
Acer pseudoplatanus	Acer	AN			-0.40	3000		p		Ph		w	0		7	3	c	Eur	2599	942	13	3.6	14.6	1083		1, 3, 17	4	5	6	6	0
Aceras anthropophorum	Orch	N		s	-0.76	40		p		Gn		h	0		9	1			109	0	0	3.6	16.3	690		7	7	4	8	3	0
Achillea millefolium	Aste	N		n	0.29	45		p		Ch		h	Rhiz2		5	5			2774	968	14	3.5	14.5	1103		6	7	5	6	4	1
Achillea ptarmica	Aste	N		n	-0.65	60		p		hc		h	Rhiz1		5	5			2382	492	0	3.3	14.3	1146		11	7	7	5	3	0
Aconitum napellus	Ranu	NA		s		100		p		Gn		h	Rhiz1		7	3			104	0	0	4.0	15.8	964		1, 3, 14, 17	5	7	7	6	0
Aconitum napellus sens. lat.	Ranu	NA		s	1.42	100		p		Gn		h	Rhiz1		7	3			104	0	0	4.0	15.8	964		1, 3, 14, 17	5	7	7	6	0
Acorus calamus	Arac	AN			0.69	112		p		Hy		h	Rhiz2					Unk	515	17	4	3.6	15.8	770		13, 14	8	10	7	7	0
Actaea spicata	Ranu	N		s	-0.44	60		p		Gn		h	Rhiz1		4	6			33	0	0	2.5	14.3	1054		16	3	5	8	6	0
Adiantum capillus-veneris	Adia	N		s	0.54	30		p		hc		h	0		9	1			38	29	4	5.2	15.2	1101		16	4	7	8	3	0
Adonis annua	Ranu	AR	VU		-2.19	40		a		Th		h	0		9	1			234	3	2	3.8	16.0	745		4	7	4	7	4	0
Adoxa moschatellina	Adox	N		n	-0.05	12		p		Gn		h	Rhiz1		5	6			1720	2	0	3.3	14.9	1005		1	4	5	6	5	0
Aegopodium podagraria	Apia	AR			-0.45	100		p		hc		h	Rhiz2		7	4		Eur, As1	2533	819	12	3.6	14.6	1064		3, 17	6	5	6	7	0
Aesculus hippocastanum	Hipp	AN			1.08	3200		p		Ph		w	0					Eur	2186	557	12	3.6	14.8	1014		3, 17	5	5	7	7	0
Aethusa cynapium	Apia	NA		n	-0.41	100		a		Th		h	0		7	3			1640	0	9	3.6	15.5	863		3, 4, 17	6	4	7	6	0
Agrimonia eupatoria	Rosa	N		n	-0.89	60		p		hc		h	0		8	4			1859	532	9	3.8	15.1	953		6	7	4	7	4	0
Agrimonia procera	Rosa	N		n	-0.38	100		p		hc		h	0		7	3			819	161	6	3.9	15.1	1026		1, 3, 6	5	6	7	5	0
Agrostemma githago	Cary	AR	EW		-0.75	100		a		Th		h	0					Unk	815	96	5	3.9	15.6	852		4	7	5	6	5	0
Agrostis canina	Poac	N		n		60		p		hc		h	Stol2		5	6			1609	361	2	3.5	14.5	1128		11, 13	7	7	3	3	0
Agrostis canina sens.lat.	Poac	N		n	1.32	60		p		hc		h	Rhiz2	Stol2	5	6			1937	443	2	3.4	14.3	1145		8, 11	7	6	3	3	0
Agrostis capillaris	Poac	N		n	1.28	62		p		hc		h	Rhiz2		5	4			2758	922	13	3.5	14.5	1104		8	6	5	4	4	0
Agrostis curtisii	Poac	N		n	-0.26	60		p		hc		h	0		8	1			207	0	0	4.9	15.8	1082		8, 10	7	6	2	1	0
Agrostis gigantea	Poac	AR			1.39	80		p		hc		h	Rhiz2		8	5			1613	109	4	3.6	15.3	889		3, 4	7	6	6	7	0
Agrostis stolonifera	Poac	N		n	3.66	45		p		hc		h	Stol2		6	6			2776	977	14	3.6	14.5	1101		4, 6	7	6	7	6	1
Agrostis vinealis	Poac	N		n		60		p		hc		h	Rhiz2		7	3			1126	150	0	3.3	14.0	1200		8, 10	7	6	3	2	0
Aira caryophyllea	Poac	N		n	-0.52	25		a		Th		h	0		8	3			2046	656	14	3.7	14.6	1087		10, 16	8	2	5	2	0
Aira praecox	Poac	N		n	-0.19	10		a		Th		h	0		8	2			2450	659	13	3.5	14.3	1149		8, 16	8	2	4	2	0
Ajuga chamaepitys	Lami	NA	VU	r	-0.62	20		p		hc		h	0		8	3			43	0	0	3.8	16.5	713		4, 7	7	4	8	2	0
Ajuga pyramidalis	Lami	N		s	-0.34	30		p		hc		h	0		4	3			106	8	0	3.3	12.6	1425		10, 16	7	5	5	2	0
Ajuga reptans	Lami	N		n	-0.56	30		p		hc		h	Stol2		7	3			2439	717	3	3.4	14.6	1095		1	5	7	5	5	0
Alchemilla acutiloba	Rosa	N		r		60		p		hc		h	0		5	3	c		15	0	0	1.6	13.2	969		6	7	4	6	5	0
Alchemilla alpina	Rosa	N		n	-0.61	15		p		hc		h	0		1	3			384	4	0	1.6	12.1	1843		7, 15, 16	7	5	4	3	0
Alchemilla filicaulis	Rosa	N		n		30		p		hc		h	0		4	3			1407	308	0	2.9	14.1	1185		7, 15, 16	8	6	6	3	0
Alchemilla glabra	Rosa	N		n		40		p		hc		h	0		5	3			1271	223	0	2.6	13.4	1338		6, 15, 16	7	6	6	4	0
Alchemilla glaucescens	Rosa	N		s		15		p		hc		h	0		5	3	c		20	3	0	2.0	13.3	1408		7	7	5	7	5	0
Alchemilla glomerulans	Rosa	N		s		30		p		hc		h	0		2	3			57	0	0	0.4	11.5	1978		8, 15	7	5	5	4	0
Alchemilla micans	Rosa	N	VU	r		40		p		hc		h	0		5	3	c		4	0	0	2.0	13.5	1056		7	7	5	7	5	0
Alchemilla minima	Rosa	NE	VU	r		5		p		hc		h	0		4	1			3	0	0	1.7	13.5	1667		7	7	6	8	3	0
Alchemilla mollis	Rosa	AN				60		p		hc		h	0					Eur	805	17	1	3.5	15.0	1009		3, 17	6	5	7	6	0
Alchemilla monticola	Rosa	N		r		35		p		hc		h	0		5	3	c		9	0	0	1.3	13.0	1084		6	7	4	6	4	0
Alchemilla subcrenata	Rosa	N	EN	r		35		p		hc		h	0		5	3	c		2	0	0	0.9	12.6	1125		6	7	4	6	5	0
Alchemilla vulgaris agg.	Rosa	N		n	-0.01	35		p		hc		h	0		5	3			1935	496	0	3.1	14.1	1179		6, 7, 15, 16	7	5	6	4	0
Alchemilla wichurae	Rosa	N		s		20		p		hc		h	0		4	3			65	0	0	0.9	12.0	1992		7	7	5	5	3	0
Alchemilla xanthochlora	Rosa	N		n		40		p		hc		h	0		7	3			1060	240	0	2.8	13.9	1174		6, 7	6	5	6	4	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Alisma gramineum	Alis	N	CR	r			30	p		Hy		h	0		7	6	c		4	0	0	3.5	16.2	612		13	7	11	7	4	0
Alisma lanceolatum	Alis	N		n	0.38	100		p		Hy		h	0		8	4			464	41	0	3.7	16.0	757		13	8	10	7	7	0
Alisma plantago-aquatica	Alis	N		n	-0.19	100	50	p		Hy		h	0		6	6			1761	624	8	3.8	15.2	950		11, 13	7	10	7	7	0
Alliaria petiolata	Bras	N		n	0.03	120		b		hc		h	0		7	3			1990	367	9	3.6	15.1	935		3	5	6	7	8	0
Allium ampeloprasum	Lili	AR			0.77	180		p		Gb		h	0tb	DRi	9	1			66	24	6	5.5	15.5	1068		3	8	4	6	5	0
Allium carinatum	Lili	AN			0.64	60		p		Gb		h	0tb	DRi				Eur	138	16	0	3.5	14.9	920		3, 17	8	4	7	2	0
Allium cepa	Lili	AC				100		p		Gb		h	0tb	DRg				Crop	43	0	0	3.9	15.8	823		4	7	4	7	8	0
Allium oleraceum	Lili	N		n	-0.24	80		p		Gb		h	0tb	DRi	7	3			327	0	0	3.4	15.4	827		7	7	5	7	4	0
Allium paradoxum	Lili	AN			1.83	40		p		Gb		h	0tb	DRi				Eur	316	10	0	3.2	15.1	810		1, 3	6	5	5	7	1
Allium roseum	Lili	AN				75		p		Gb		h	0tb	DRi	0	3		Eur	135	0	6	4.9	16.1	878		3, 16	7	4	6	5	0
Allium schoenoprasum	Lili	N		s	1.69	45		p		Gb		h	Rhiz1		2	6	c		21	2	0	4.0	14.9	1052		16	8	6	5	1	0
Allium scorodoprasum	Lili	N		n	0.30	80		p		Gb		h	0tb		7	3	c		181	0	0	3.0	14.5	1000		1, 3, 6	6	6	7	7	0
Allium sphaerocephalon	Lili	NA	EN	r		80		p		Gb		h	0tb		8	3			1	0	2	5.6	16.8	850		16, 17	9	3	8	2	0
Allium triquetrum	Lili	AN			2.46	45		p		Gb		h	0tb		0	3		Eur	311	123	13	4.9	15.7	956		3	6	4	6	5	0
Allium ursinum	Lili	N		n	0.24	45		p		Gb		h	0		7	3			2034	371	0	3.5	14.8	1065		1	4	6	7	7	0
Allium vineale	Lili	N		n	0.90	80		p		Gb		h	0tb	DRi	7	3			1197	82	11	4.0	15.6	884		3, 6, 7	7	5	8	6	0
Alnus glutinosa	Betu	N		n	-0.32	2000		p		Ph		w	0		7	4			2478	901	10	3.5	14.5	1100		1, 14	5	8	6	6	0
Alnus incana	Betu	AN				2000		p		Ph		w	0		4	6	c	NHem	714	71	0	3.4	15.0	984		1, 3	6	7	6	4	0
Alopecurus aequalis	Poac	N		n	-0.33	40		a	p	Th	hc	h	0		5	6			298	3	1	3.5	16.0	717		13	8	9	4	7	0
Alopecurus borealis	Poac	N		s	-0.24	50		p		hc		h	0gr		1	6	c		37	0	0	-0.6	11.0	1514		11	8	9	5	3	0
Alopecurus bulbosus	Poac	N		s	0.30	29		p		hc		h	0gr		8	2			92	0	1	4.6	16.4	826		6	8	7	7	5	3
Alopecurus geniculatus	Poac	N		n	0.83	40		p		hc		h	Node2		5	3			2598	805	8	3.5	14.5	1087		6	8	7	6	6	1
Alopecurus myosuroides	Poac	AR			0.42	80		a		Th		h	0		8	3			1071	6	4	3.7	15.9	765		4	6	5	7	6	0
Alopecurus pratensis	Poac	N		n	0.09	105		p		hc		h	0		5	4			2424	738	8	3.5	14.7	1032		6	7	5	6	7	0
Althaea hirsuta	Malv	AN			0.11	60		a		Th		h	0		8	3		Eur	88	0	1	4.1	16.1	804		1, 7	9	4	8	3	0
Althaea officinalis	Malv	N		s	-0.29	120		p		hc		h	0		7	4			125	0	2	4.4	16.4	774		13, 21	7	7	8	4	2
Amaranthus albus	Amar	AN				60		a		Th		h	0					Am	99	4	2	4.0	16.1	743		17	8	5	8	7	0
Amaranthus retroflexus	Amar	AN				100		a		Th		h	0					Am, SAm	434	36	10	4.0	16.0	787		3, 4, 17	7	4	7	7	0
Ammophila arenaria	Poac	N		n	-0.26	120		p		hc		h	Rhiz2		8	3			553	166	10	4.4	14.4	1083	Co	19	9	4	6	3	3
Amsinckia micrantha	Bora	AN				70		a		Th		h	0					Am4	336	1	0	3.4	15.4	701		4	9	3	3	3	0
Anacamptis pyramidalis	Orch	N		n	0.55	55		p		Gn		h	0		8	3			840	350	9	4.1	15.5	861		7	8	4	8	3	0
Anagallis arvensis	Prim	N		n	-0.73	20		a		Th		h	0		8	4			1856	713	14	4.0	15.2	962		4	7	4	6	5	0
Anagallis minima	Prim	N		n	-1.16	5		a		Th		h	0		7	3			532	87	7	4.2	14.8	1155		3	8	7	5	3	0
Anagallis tenella	Prim	N		n	-0.54	5		p		hc	Ch	h	Node2		8	1			1281	636	9	4.0	14.6	1139		11	8	8	5	3	0
Anaphalis margaritacea	Aste	AN			0.07	100		p		hc		h	Rhiz1					As2, Am	259	12	2	3.6	14.8	1167		1, 3	8	5	6	3	0
Anchusa arvensis	Bora	AR			-0.70	50		a	b	Th	hc	h	0		7	4			1514	75	13	3.7	15.0	874		4	7	4	6	5	0
Andromeda polifolia	Eric	N		n	0.09	35		p		Ch		w	Rhiz2		4	6			222	152	0	3.3	14.4	1159		12	9	9	1	1	0
Anemone nemorosa	Ranu	N		n	-0.70	23		p		Gn		h	Rhiz1		7	4			2305	541	3	3.3	14.5	1113		1, 16	5	6	5	4	0
Angelica sylvestris	Apia	N		n	0.12	200		p		hc		h	0		5	4			2726	968	5	3.5	14.4	1109		11, 16	7	8	6	5	0
Anisantha diandra	Poac	AN			1.50	80		a		Th		h	0		0	3		Eur	307	6	12	3.9	16.0	728		3, 4, 19	7	4	5	4	0
Anisantha rigida	Poac	AN			1.13	60		a		Th		h	0		0	3		Eur	97	0	7	4.1	16.1	709		3, 4, 19	8	4	8	7	0
Anisantha sterilis	Poac	AR			0.05	80		a		Th		h	0		8	3			1836	281	14	3.8	15.3	893		3, 4, 17	7	5	8	7	0
Anogramma leptophylla	Adia	N		o		7		a		Th		h	0		9	1			0	0	3	6.2	16.7	832		3	7	2	8	1	0
Antennaria dioica	Aste	N		n	-0.88	15		p		Ch		h	Stol1		5	5			968	356	0	2.9	13.3	1379		7, 10	8	5	4	2	0
Anthemis arvensis	Aste	AR			-1.79	50		a		Th		h	0		8	3			696	19	7	3.7	15.6	797		3, 4	7	4	7	6	0
Anthemis cotula	Aste	AR			-1.60	60		a		Th		h	0		8	3			1103	49	6	3.8	15.7	809		4	7	5	6	6	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Anthoxanthum aristatum	Poac	AN			-2.65	40		a		Th		h	0					Eur	93	0	1	3.9	16.0	775		4, 17	7	4	4	5	0
Anthoxanthum odoratum	Poac	N		n	0.90	50		p		hc		h	0		6	4			2782	965	14	3.5	14.4	1106		6	7	6	4	3	0
Anthriscus caucalis	Apia	N		n	-0.16	70		a		Th		h	0		7	3			659	47	12	3.9	15.7	747		3, 4, 8	7	5	6	5	0
Anthriscus sylvestris	Apia	N		n	-0.19	100		p		hc		h	0		5	5			2480	805	5	3.6	14.6	1039		3	6	5	7	7	0
Anthyllis vulneraria	Faba	N		n	0.45	60		p		hc		h	0		5	3			1798	465	9	3.7	14.6	1030		7	8	4	7	2	0
Antirrhinum majus	Scro	AN			2.84	30		p		Ch		h	0					Eur	1043	84	8	3.9	15.7	837		3, 17	8	3	7	5	0
Apera interrupta	Poac	AN			0.80	40		a		Th		h	0		8	4		Eur, As1	104	0	0	3.4	15.9	671		3, 4, 16	9	5	8	6	3
Apera spica-venti	Poac	AR			-0.21	100		a		Th		h	0		5	4			326	1	3	3.7	16.0	726		3, 4	7	4	5	5	0
Aphanes arvensis	Rosa	N		n		10		a		Th		h	0		7	3			1608	432	4	3.7	15.0	956		4, 16	8	4	6	4	0
Aphanes arvensis agg.	Rosa	N		n	-0.32	10		a		Th		h	0		7	3			2302	659	14	3.6	14.7	1038		4, 8, 16	7	4	6	4	0
Aphanes australis	Rosa	N		n		10		a		Th		h	0		7	3			1549	230	14	3.5	14.6	1070		8, 16	7	4	5	4	0
Apium graveolens	Apia	N		n	-0.63	80		b		hc		h	0		8	4			519	82	8	4.3	15.8	849		13	8	8	7	7	2
Apium inundatum	Apia	N		n	-0.54	30	50	p		Hy		h	Irreg		7	2			927	351	6	3.8	14.8	1023		11, 13	7	10	6	4	0
Apium nodiflorum	Apia	N		n	-0.31	60	100	p		Hy		h	Irreg		8	4			1661	855	12	4.0	15.2	961		14	7	10	7	7	0
Apium repens	Apia	N	CR	r		15		p		hc		h	Node2		7	3			3	0	0	3.6	16.4	651		13	9	9	7	7	0
Aquilegia vulgaris	Ranu	N		n	1.70	100		p		hc		h	0		7	3			1504	197	5	3.6	15.0	986		1, 3, 16	6	4	6	5	0
Arabidopsis thaliana	Bras	N		n	1.21	30		a		Th		h	0		7	4			2218	509	13	3.5	14.8	1034		16, 17	8	3	6	2	0
Arabis alpina	Bras	N	EN	r		15		p		Ch		h	0		1	4			1	0	0	2.5	11.8	3218		16	7	5	7	3	0
Arabis glabra	Bras	N	VU	s	-1.16	100		b		hc		h	0		7	4			151	0	1	3.5	16.0	686		8	7	3	8	5	0
Arabis hirsuta	Bras	N		n	-1.02	40		b	p	hc		h	0		5	6			1042	143	4	3.3	14.6	1104		7, 16	7	5	8	3	0
Arabis petraea	Bras	N		s	-0.64	25		p		Ch		h	0		1	5			78	2	0	1.7	11.9	1966		15, 16	9	3	8	1	0
Arabis scabra	Bras	N	VU	r		20		p		Ch		h	0		9	3			1	0	0	4.4	16.5	844		16	7	3	8	2	0
Arbutus unedo	Eric	N		o	1.18	500		p		Ph		w	0		9	1			0	8	0	4.7	14.4	1335		1, 16	6	5	7	2	0
Arctium lappa	Aste	AR			0.51	150		b		hc		h	0		7	4			971	4	1	3.8	16.0	769		3	9	5	7	9	0
Arctium minus	Aste	N		n	-0.41	150		b		hc		h	0		7	5			2424	846	14	3.7	14.7	1051		3	6	4	7	5	0
Arctostaphylos alpinus	Eric	N		s	-0.22	20		p		Ch		w	Node2		1	6			134	0	0	1.6	11.6	1750		15	7	6	2	2	0
Arctostaphylos uva-ursi	Eric	N		n	-0.75	20		p		Ch		w	Node2		4	6			473	37	0	2.1	12.3	1615		10, 15	7	5	2	2	0
Arenaria ciliata	Cary	N		o		6		p		Ch		h	0		1	3			0	1	0	2.6	12.9	1454		15	9	5	8	2	0
Arenaria norvegica	Cary	N		r	0.21	6		p	a	Ch	Th	h	0		1	3			16	1	0	2.5	12.3	1904		16	9	3	8	2	0
Arenaria serpyllifolia	Cary	N		n	-0.76	30		a		Th		h	0		8	4			2147	522	13	3.6	14.9	986		16	8	3	7	5	0
Armeria arenaria	Plum	N		o		20		p		Ch		h	0		8	2			0	0	5	6.1	16.9	843	Co	18, 19	8	3	6	2	0
Armeria maritima	Plum	N		n	-0.14	15		p		Ch		h	0		3	6			1137	319	14	3.9	14.1	1265	Co	18, 21	8	7	5	5	3
Armoracia rusticana	Bras	AR			0.05	150		p		hc		h	Rhiz2					Crop	1532	111	10	3.8	15.6	850		3	8	5	7	7	0
Arnoseris minima	Aste	AR	EX		-3.72	30		a		Th		h	0		7	3			83	0	0	3.6	16.1	685		4	7	4	3	3	0
Arrhenatherum elatius	Poac	N		n	0.37	150		p		hc		h	0	DRg	7	3			2678	958	13	3.6	14.5	1089		3, 6	7	5	7	7	0
Artemisia absinthium	Aste	AR			-0.46	90		p		Ch		sw	0		7	4			1005	41	6	3.8	15.6	861		3, 16, 17	7	4	7	9	0
Artemisia campestris	Aste	N	EN	r	-0.42	60		p		Ch		sw	Rhiz1		7	4	c		9	0	0	3.3	16.1	620		3, 8	8	3	6	5	0
Artemisia norvegica	Aste	N	VU	r		8		p		hc		h	0		1	3			3	0	0	0.9	10.9	1982		15	9	4	4	1	0
Artemisia vulgaris	Aste	AR			-0.20	150		p		hc		h	0		7	4			2109	489	12	3.7	14.9	984		3, 17	7	4	8	7	0
Arum italicum	Arac	N		s	2.09	60		p		Gn		h	Rhiz1		9	1			39	0	8	5.5	16.2	962		1, 3	4	5	6	6	0
Arum maculatum	Arac	N		n	-0.28	50		p		Gn		h	Rhiz1		7	3			1604	650	11	3.9	15.3	931		1	4	5	7	7	0
Asparagus officinalis	Lili	N		n	1.78	150		p		Gn		h	0		7	1			17	7	7	5.4	15.9	953		3, 18, 19	7	5	6	5	2
Asparagus officinalis subsp.officinalis	Lili	AR				150		p		Gn		h	0		7	4			587	7	4	3.8	16.2	713		3	7	5	6	5	2
Asparagus officinalis subsp.prostratus	Lili	N	VU	r		30		p		Gn		h	0		7	1			17	7	7	5.9	15.9	950		18, 19	8	4	6	3	3

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Asperula cynanchica	Rubi	N		n	-0.47	50		p		hc		h	Rhiz2		7	3			329	47	3	4.0	15.9	842		7	7	3	8	2	0
Asplenium adiantum-nigrum	Aspl	N		n		45		p		hc		h	0		7	3			2146	708	14	3.7	14.6	1110		3, 16	6	4	5	5	0
Asplenium adiantum-nigrum sens.lat.	Aspl	N		n	0.35	45		p		hc		h	0		8	3			2146	708	14	3.7	14.6	1110		3	6	4	5	5	0
Asplenium marinum	Aspl	N		n	0.02	35		p		hc		h	0		8	2			530	172	12	4.4	14.0	1261	Co	18	9	6	5	5	3
Asplenium obovatum	Aspl	N		s	-0.18	30		p		hc		h	0		9	1			135	19	11	5.3	15.4	1197		16	5	5	4	3	0
Asplenium onopteris	Aspl	N		o		45		p		hc		h	0		9	1			0	34	0	4.6	14.5	1200		1, 3, 16	5	5	7	3	0
Asplenium ruta-muraria	Aspl	N		n	0.15	12		p		hc		h	0		7	6			2184	898	11	3.7	14.7	1074		3, 16, 17	7	3	7	2	0
Asplenium septentrionale	Aspl	N		s	-0.08	15		p		hc		h	0		7	3			55	2	0	2.5	13.2	1825		16	8	3	2	2	0
Asplenium trichomanes	Aspl	N		n	0.07	35		p		hc		h	0		8	6			2294	911	12	3.6	14.5	1121		3, 16, 17	5	3	8	2	0
Asplenium viride	Aspl	N		n	-0.21	20		p		hc		h	0		4	6			435	43	0	2.0	12.8	1701		15, 16	4	5	8	3	0
Aster (alien N American taxa)	Aste	AN				150		p		hc		h	Rhiz1					Am	1211	53	5	3.7	15.3	934		3, 17, 21	7	5	7	6	1
Aster lanceolatus	Aste	AN				120		p		hc		h	Rhiz1					Am6	211	5	0	3.9	15.8	844		3, 17	7	5	7	6	1
Aster lanceolatus x novi-belgii (A. x salignus)	Aste	AN				150		p		hc		h	Rhiz1					Gard	373	9	0	3.8	15.6	890		3, 17	7	5	7	6	1
Aster linosyris	Aste	N		r	-0.10	50		p		hc		h	0		7	3	c		9	0	0	4.9	15.8	1006	Co	18	8	3	8	1	0
Aster novae-angliae	Aste	AN				200		p		hc		h	Rhiz1					Am6	83	0	1	3.9	16.1	806		3	7	5	7	6	0
Aster novi-belgii	Aste	AN				150		p		hc		h	Rhiz1					Am6	557	12	3	3.7	15.2	936		3, 17	7	6	7	6	1
Aster tripolium	Aste	N		n	-0.44	100		p		hc		h	0		7	5			703	267	3	4.3	14.8	1109	Co	21	9	8	7	6	5
Astragalus alpinus	Faba	N	VU	r		30		p		hc		h	0		1	6			4	0	0	-0.9	11.0	1275		7, 15	9	4	6	2	0
Astragalus danicus	Faba	N		n	-0.88	30		p		hc		h	0		7	6	c		242	3	0	3.3	14.8	745		7	8	3	8	2	0
Astragalus glycyphyllos	Faba	N		n	-0.36	100		p		hc		h	0		7	3			357	0	0	3.4	15.7	711		1, 3, 16	6	4	7	3	0
Athyrium distentifolium	Wood	N		s	0.38	30		p		hc		h	0		1	6			98	0	0	0.3	11.2	2098		15	6	6	3	4	0
Athyrium filix-femina	Wood	N		n	0.25	90		p		hc		h	0		5	6			2574	849	12	3.5	14.4	1132		1, 16	5	7	5	6	0
Athyrium flexile	Wood	NE	VU	r		20		p		hc		h	0		1	1			16	0	0	-0.9	10.7	1753		15, 16	7	6	3	4	0
Atriplex glabriuscula	Chen	N		n	-0.93	33		a		Th		h	0		5	2			780	159	10	4.2	14.4	1163	Co	19	9	6	7	8	3
Atriplex laciniata	Chen	N		n	0.38	30		a		Th		h	0		7	1			418	92	13	4.5	14.8	979	Co	19	9	6	7	7	3
Atriplex littoralis	Chen	N		n	1.59	100		a		Th		h	0		7	6			362	36	3	4.2	15.4	822	Co	19	9	6	7	6	4
Atriplex longipes	Chen	N		s		90		a		Th		h	0		4	3			39	0	0	4.2	15.6	982	Co	21	9	6	7	8	4
Atriplex patula	Chen	N		n	-0.34	87		a		Th		h	0		6	4			2318	787	12	3.7	14.8	1013		3, 4	7	5	7	7	2
Atriplex pedunculata	Chen	N	CR	r		30		a		Th		h	0		7	4			20	0	0	3.9	16.4	603	Co	21	9	8	7	8	5
Atriplex portulacoides	Chen	N		n	0.06	80		p		Pn		w	0		9	1			322	68	10	4.6	15.7	869	Co	21	9	8	8	6	6
Atriplex praecox	Chen	N		s		10		a		Th		h	0		4	3			62	0	0	3.6	12.8	1503	Co	19	9	5	7	6	3
Atriplex prostrata	Chen	N		n	1.10	100		a		Th		h	0		6	4			1847	349	5	3.9	15.1	955		3, 4, 19, 21	8	7	7	7	2
Atropa belladonna	Sola	N		n	-0.33	150		p		hc		h	0		7	3			414	0	0	3.6	16.1	717		1, 3	5	4	8	6	0
Avena fatua	Poac	AR			1.17	150		a		Th		h	0					Eur	1556	170	5	3.7	15.4	849		3, 4	7	4	7	7	0
Avena sativa	Poac	AC				150		a		Th		h	0					Eur	728	131	4	3.9	15.4	903		4	7	5	7	7	0
Avena strigosa	Poac	AC			-3.01	120		a		Th		h	0					Crop	270	72	6	4.0	14.6	1042		4	7	7	5	5	0
Azolla filiculoides	Azol	AN			2.76		1	p		Hy		h	Frag					Am4, SAm	660	21	9	4.0	16.0	774		13, 14	7	11	8	8	0
Baldellia ranunculoides	Alis	N		n	-1.08	20	20	p		Hy		h	0	Stol2	8	2			536	344	6	4.1	15.1	974		13, 14	8	10	6	2	0
Ballota nigra	Lami	AR			-0.37	100		p		hc		h	Rhiz2		8	3			1365	70	12	3.8	15.7	797		3	7	4	8	6	0
Barbarea intermedia	Bras	AN			1.92	60		b		hc		h	0					Eur	735	207	7	3.7	15.0	975		4	8	5	6	7	0
Barbarea stricta	Bras	AN			0.50	100		b	p	hc		h	0		5	4	c	Eur, As1	104	1	0	3.7	15.9	705		11, 13, 14	8	7	7	8	0
Barbarea verna	Bras	AN			1.34	90		a	b	Th	hc	h	0					Eur	514	28	7	4.1	15.6	943		3	8	5	6	6	0
Barbarea vulgaris	Bras	N		n	-0.02	90		b	p	hc		h	0		7	4			1869	615	3	3.7	15.0	943		3, 14	7	6	7	8	0
Bartsia alpina	Scro	N		r	-0.10	22		p		hc		h	Rhiz1		1	3			18	10	0	0.4	11.9	2069		7, 11, 15	8	8	7	2	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Bellis perennis	Aste	N		n	0.89	8		p		hc		h	Rhiz1		7	3			2797	984	14	3.5	14.5	1105		6	8	5	6	4	0
Berberis vulgaris	Berb	NA		n	-0.61	250		p		Pn		w	Rhiz1		7	3			974	26	1	3.4	15.2	892		1, 3	7	4	8	3	0
Berula erecta	Apia	N		n	-0.02	100		p		Hy		h	Irreg		7	3			1111	265	1	3.8	15.5	843		11	7	10	7	7	0
Beta vulgaris	Chen	N		n	1.23	150		p	b	hc		h	0		9	1			607	205	14	4.6	15.4	952	Co	18, 19	9	5	7	8	3
Betula nana	Betu	N		s	-0.09	100		p		Pn		w	Rhiz1		2	6			125	0	0	0.7	11.5	1585		10, 12, 15	7	8	1	1	0
Betula pendula	Betu	N		n	-0.23	2500		p		Ph		w	0		5	4			2293	390	0	3.3	14.6	1073		1	7	5	4	4	0
Betula pubescens	Betu	N		n	0.40	2000		p		Ph		w	0		5	4			2399	779	0	3.4	14.4	1123		1	7	7	4	4	0
Bidens cernua	Aste	N		n	-0.54	67		a		Th		h	0		7	6			874	281	2	3.9	15.5	883		13, 14	8	9	7	7	0
Bidens tripartita	Aste	N		n	-0.43	67		a		Th		h	0		7	5			1055	222	5	3.9	15.5	884		11, 13	8	8	7	7	0
Blackstonia perfoliata	Gent	N		n	0.12	45		a		Th		h	0		9	2			787	198	2	4.0	15.8	812		7	8	5	8	2	0
Blechnum spicant	Blec	N		n	-0.39	50		p		hc		h	0		7	3			2159	831	9	3.5	14.1	1198		1, 2, 10, 16	5	6	3	3	0
Blysmus compressus	Cype	N		n	-1.28	37		p		hc		h	Rhiz2		7	3	c		384	0	0	3.2	15.2	840		11	8	8	8	3	0
Blysmus rufus	Cype	N		n	-0.53	37		p		hc		h	Rhiz2		4	3			367	74	0	3.8	13.6	1371	Co	21	8	8	7	4	5
Bolboschoenus maritimus	Cype	N		n	0.00	100		p		Hy		h	Rhiz1	DRg	8	4			766	216	7	4.3	15.1	1020	Co	21	8	10	8	7	4
Botrychium lunaria	Ophi	N		n	-0.43	15		p		Gn		h	0		5	6			1109	138	1	3.0	13.8	1259		7, 16	8	4	6	2	0
Brachypodium pinnatum	Poac	N		n	0.15	90		p		hc		h	Rhiz1		7	4			612	24	0	3.6	15.9	745		7	7	3	8	3	0
Brachypodium sylvaticum	Poac	N		n	-0.17	95		p		hc		h	0		7	3			2310	787	12	3.7	14.7	1062		1	6	5	6	5	0
Brassica napus	Bras	AN			2.88	130		a	b	Th	hc	h	0					Gard	1758	144	7	3.6	15.1	914		3, 4, 17	7	4	7	7	0
Brassica nigra	Bras	NA		n	-0.02	150		a		Th		h	0		7	3			1080	58	11	4.0	15.8	822		3, 4	8	5	7	6	0
Brassica oleracea	Bras	NA		s	0.90	130		p		Pn		sw	0		8	2			98	0	1	4.9	15.6	922		17, 18	8	4	7	8	3
Brassica rapa	Bras	AR			0.74	100		a	b	Th	hc	h	0		7	4			1407	630	7	3.9	15.0	993		4	7	5	7	6	0
Briza maxima	Poac	AN				62		a		Th		h	0		0	3		Eur	239	4	11	4.6	15.8	932		3, 17, 19	7	3	4	2	0
Briza media	Poac	N		n	-0.75	62		p		hc		h	Rhiz1		7	3			1853	588	2	3.5	14.9	971		7	8	5	7	3	0
Briza minor	Poac	AR			0.28	55		a		Th		h	0		9	1			92	0	8	5.2	16.1	919		4	7	4	5	5	0
Bromopsis benekenii	Poac	N		s	0.25	105		p		hc		h	0		7	3	c		64	0	0	3.0	15.3	896		1	5	5	7	5	0
Bromopsis erecta	Poac	N		n	-0.01	110		p		hc		h	0		7	3			798	48	3	3.7	15.9	764		7	7	4	8	3	0
Bromopsis inermis	Poac	AN			1.71	150		p		hc		h	Rhiz2		7	4		Eur, As1	263	0	0	3.6	15.9	757		3	8	4	8	5	0
Bromopsis ramosa	Poac	N		n	-0.18	170		p		hc		h	0		7	3			1887	450	0	3.5	14.9	995		1	4	6	7	7	0
Bromus commutatus	Poac	N		n	1.07	95		a		Th		h	0		7	3			675	33	0	3.9	16.1	772		3	7	4	8	6	0
Bromus hordeaceus	Poac	N		n	-0.37	80		a		Th		h	0		8	3			2406	830	14	3.7	14.7	1051		4, 6	8	4	7	4	0
Bromus racemosus	Poac	N		n	0.74	95		a		Th		h	0		7	3			516	78	0	4.0	15.8	852		3, 6	6	6	7	8	0
Bromus secalinus	Poac	AR			-1.15	90		a		Th		h	0					Unk	403	19	4	3.9	15.8	816		4	6	4	5	4	0
Bryonia dioica	Cucu	N		n	-0.50	400		p		Gn		h	0		9	2			1004	0	4	3.6	16.0	726		3	7	5	7	7	0
Buddleja davidii	Budd	AN			3.73	500		p		Ph		w	0					As	1434	267	14	3.9	15.4	930		3, 17	7	5	7	5	0
Bunium bulbocastanum	Apia	N		r	0.14	50		p		Gn		h	0		8	2			13	0	0	3.3	16.3	633		4	7	4	9	4	0
Bupleurum baldense	Apia	N	EN	r		10		a		Th		h	0		9	1			3	0	8	6.1	16.5	808	Co	18, 19	9	3	8	2	0
Bupleurum falcatum	Apia	AN				100		p		hc		h	0		8	5		Eur, As	8	0	0	3.4	16.0	776		3	6	3	9	3	0
Bupleurum rotundifolium	Apia	AR	EW		-4.58	30		a		Th		h	0					Eur?	287	0	1	3.8	16.0	753		4	8	3	9	4	0
Bupleurum tenuissimum	Apia	N		s	-0.97	50		a		Th		h	0		8	3			161	0	0	4.2	16.4	684		3, 6	9	7	8	4	3
Butomus umbellatus	Buto	N		n	-0.04	150	150	p		Hy		h	Rhiz2	DRg	7	4			685	0	0	3.7	16.0	715		13, 14	7	11	7	7	0
Buxus sempervirens	Buxa	N		r	2.54	500		p		Ph		w	0		9	2			2	0	0	3.7	16.6	716		1, 3	4	4	8	5	0
Cakile maritima	Bras	N		n	-0.38	30		a		Th		h	0		6	3			576	131	13	4.4	14.6	1011	Co	19	9	6	7	7	3
Calamagrostis canescens	Poac	N		n	-0.33	120		p		hc		h	Rhiz2		5	4	c		293	0	0	3.4	15.7	723		11	7	9	7	5	0
Calamagrostis epigejos	Poac	N		n	0.47	200		p		hc		h	Rhiz2		5	5			936	9	4	3.7	15.7	812		3, 11	7	7	7	6	0
Calamagrostis purpurea	Poac	N		r		150		p		hc		h	Rhiz2		4	4			10	0	0	1.6	13.1	1346		1, 11	7	8	6	3	0
Calamagrostis scotica	Poac	NE	VU	r		100		p		hc		h	Rhiz1		4	1			1	0	0	3.6	12.8	888		11	8	8	6	4	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Calamagrostis stricta	Poac	N		r	-0.74	100		p		hc		h	Rhiz1		2	6			22	6	0	2.9	14.2	928		11	9	9	4	2	0
Calendula officinalis	Aste	AN				50		a		Th		h	0					Unk	764	24	10	4.0	15.7	822		3, 17	8	5	7	7	0
Callitriche brutia	Call	N		n		25		a		Hz		h	Node2		9	1			213	63	3	4.1	14.9	1087		13	8	10	5	5	0
Callitriche hamulata	Call	N		n			80	a	p	Hz	Hy	h	Node2	Irreg	5	2			1758	282	6	3.3	14.2	1162		13, 14	7	11	6	5	0
Callitriche hamulata sens.lat.	Call	N		n	1.12	25	80	a	p	Hz	Hy	h	Node2	Irreg	6	3			1758	282	6	3.3	14.2	1162		11, 13, 14	7	10	5	5	0
Callitriche hermaphroditica	Call	N		n	0.21		50	p		Hy		h	Irreg		4	6			392	115	0	3.1	13.7	1120		13	7	12	7	5	1
Callitriche obtusangula	Call	N		n	1.35		60	p		Hy		h	Irreg		8	2			757	157	4	4.1	15.7	840		13, 14	7	11	7	6	1
Callitriche platycarpa	Call	N		n		15	100	a	p	Hz	Hy	h	Node2	Irreg	7	3			1006	173	5	3.7	15.1	947		11, 13	6	10	7	7	0
Callitriche stagnalis	Call	N		n		15	60	a	p	Hz	Hy	h	Node2	Irreg	7	3			1488	346	5	3.7	14.6	1083		13	7	10	6	6	1
Callitriche stagnalis sens.lat.	Call	N		n	1.51	15	80	a	p	Hz	Hy	h	Node2	Irreg	7	3			2647	769	11	3.5	14.4	1105		11, 13, 14	6	10	6	6	0
Callitriche truncata	Call	N		s	0.47		20	a		Hz		h	0	Irreg	9	1			52	1	2	4.1	16.1	719		13, 14	7	12	7	7	0
Calluna vulgaris	Eric	N		n	-0.64	60		p		Ch	Pn	w	0	Node1	5	3			2434	905	11	3.5	14.3	1157		10, 12	7	6	2	2	0
Caltha palustris	Ranu	N		n	-0.26	40		p		hc		h	0	Stol2	3	6			2636	802	0	3.4	14.4	1111		11	7	9	6	4	0
Calystegia pulchra	Conv	AN			2.78	300		p		Gn		h	Rhiz2					Unk	694	116	2	3.5	14.9	1020		3, 17	6	5	7	7	0
Calystegia sepium	Conv	N		n	0.69	200		p		Gn		h	Rhiz2		7	6			2175	881	14	3.8	14.9	1021		11, 14	7	8	7	7	1
Calystegia silvatica	Conv	AN			0.47	300		p		Gn		h	Rhiz2					Eur	1790	344	13	3.8	15.2	933		3, 17	5	5	7	6	0
Calystegia soldanella	Conv	N		n	-0.58	30		p		Gn		h	Rhiz2		9	1			289	67	10	4.8	15.4	959	Co	19	9	4	7	4	3
Camelina sativa	Bras	AR				100		a	b	Th	hc	h	0					Unk	248	17	3	3.9	15.6	793		4, 17	7	4	7	6	0
Campanula glomerata	Camp	N		n	-0.51	20		p		hc		h	0		7	5	c		432	0	0	3.4	15.8	737		7	8	4	7	3	0
Campanula latifolia	Camp	N		n	-0.23	120		p		hc		h	0		7	3			944	0	0	2.9	14.6	914		1	4	5	7	6	0
Campanula patula	Camp	N		s	-0.77	60		b		hc		h	0		7	3	c		118	0	0	3.6	16.0	772		1, 3	8	5	7	5	0
Campanula persicifolia	Camp	AN			2.80	80		p		hc		h	Rhiz1		7	3	c	Eur	369	1	1	3.5	15.5	825		1, 3	6	5	7	6	0
Campanula portenschlagiana	Camp	AN				30		p		hc	Ch	h	Rhiz1					Eur	337	11	5	4.5	15.8	967		3, 17	6	5	7	6	0
Campanula poscharskyana	Camp	AN				30		p		hc	Ch	h	Rhiz1					Eur	451	7	5	4.2	15.8	927		3, 17	6	5	7	6	0
Campanula rapunculoides	Camp	AN			-1.24	80		p		Gn		h	Rhiz2		7	3		Eur	585	16	0	3.4	15.5	763		3, 17	6	4	7	5	0
Campanula rapunculus	Camp	AR			-2.16	80		b		hc		h	0		8	3			109	0	0	3.5	15.8	719		3, 17	7	3	7	4	0
Campanula rotundifolia	Camp	N		n	-0.92	45		p		hc		h	Rhiz1		5	6			2294	270	0	3.2	14.4	1104		7	7	4	5	2	0
Campanula trachelium	Camp	N		n	0.14	90		p		hc		h	0		7	3			555	17	0	3.6	16.0	753		1	4	5	7	6	0
Capsella bursa-pastoris	Bras	AR			-1.01	50		a		Th		h	0		6	4			2632	917	14	3.6	14.6	1073		4, 17	7	5	7	7	0
Cardamine amara	Bras	N		n	0.00	50		p		hc		h	Node1		7	3			1117	39	0	2.9	14.7	943		1, 14	6	9	7	6	0
Cardamine bulbifera	Bras	N		s	0.36	70		p		Gn		h	Rhiz1	DRa	7	3	c		25	0	0	3.7	16.4	780		1	3	5	7	6	0
Cardamine flexuosa	Bras	N		n	1.06	50		p	a	hc	Th	h	0		7	3			2580	861	12	3.5	14.5	1110		1	5	7	6	6	0
Cardamine hirsuta	Bras	N		n	0.69	30		a		Th		h	0		8	4			2519	791	14	3.6	14.6	1070		16	8	5	6	6	0
Cardamine impatiens	Bras	N		s	-0.09	80		b		hc		h	0		7	5			159	1	0	3.3	15.5	933		1, 3	6	5	8	7	0
Cardamine pratensis	Bras	N		n	0.42	60		p		hc		h	0	Leaf	3	6			2721	931	10	3.5	14.4	1104		6, 11	7	8	5	4	0
Carduus crispus	Aste	N		n	-0.18	135		b		hc		h	0		7	4			1464	58	1	3.5	15.4	832		3	7	4	8	7	0
Carduus nutans	Aste	N		n	-0.15	100		b		hc		h	0		7	4			1235	0	10	3.7	15.7	797		6, 7	7	4	8	5	0
Carduus tenuiflorus	Aste	N		n	-0.14	75		b	a	hc	Th	h	0		8	2			449	132	14	4.6	15.4	892		3, 6	8	4	7	4	0
Carex acuta	Cype	N		n	-0.46	120		p		hc	Hy	h	Rhiz2		5	4			707	87	0	3.5	15.5	830		11	7	9	7	5	0
Carex acutiformis	Cype	N		n	0.16	150		p		hc	Hy	h	Rhiz2		7	4			1501	195	1	3.5	15.3	889		11	7	9	7	6	0
Carex appropinquata	Cype	N		s	-0.17	80		p		hc		h	0		5	4	c		38	13	0	3.5	15.5	752		11	7	9	8	4	0
Carex aquatilis	Cype	N		n	0.76	110		p		Hy	hc	h	Rhiz2		2	6			219	39	0	2.3	13.2	1255		11, 13	8	10	4	3	0
Carex arenaria	Cype	N		n	-0.27	40		p		hc		h	Rhiz2		7	3			700	186	13	4.3	14.7	1063	Co	19	8	3	5	2	1
Carex atrata	Cype	N		s	-0.02	50		p		hc		h	0		2	6			57	0	0	-0.3	11.1	1980		15, 16	7	5	6	3	0
Carex atrofusca	Cype	N		r	-0.11	35		p		hc		h	0gr		1	6			5	0	0	-0.4	11.2	1917		11, 15	8	9	7	3	0
Carex bigelowii	Cype	N		n	-0.20	30		p		hc		h	Rhiz1		1	6			402	42	0	1.8	12.1	1800		15	7	5	2	2	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	Cl	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Carex binervis	Cype	N		n	-0.17	90		p		hc		h	0		7	1			1927	647	3	3.3	14.0	1243		8, 10, 16	7	6	3	2	0
Carex buxbaumii	Cype	N	VU	r		70		p		hc		h	Rhiz1		4	4	c		3	1	0	3.3	13.5	1410		11	8	8	7	2	0
Carex capillaris	Cype	N		s	-0.35	40		p		hc		h	0gr		2	6			120	0	0	1.2	11.9	1636		7	9	6	8	2	0
Carex caryophyllea	Cype	N		n	-0.20	15		p		hc		h	Rhiz1		7	4			1866	437	11	3.4	14.7	1079		7	7	4	7	2	0
Carex chordorrhiza	Cype	N	VU	r		40		p		hc		h	Rhiz2		2	6	c		4	0	0	1.4	11.9	1176		11	9	9	4	3	0
Carex curta	Cype	N		n	0.17	50		p		hc		h	Rhiz1		4	6			1190	219	0	2.7	13.6	1303		11	8	9	3	2	0
Carex davalliana	Cype	N	EX	x		25		p		hc		h	0		7	3	c		1	0	0	4.0	16.3	833		11	9	9	8	2	0
Carex depauperata	Cype	N	CR	r		60		p		hc		h	Rhiz1		9	2			9	1	0	4.1	15.8	823		3	5	4	7	4	0
Carex diandra	Cype	N		n	0.22	60		p		hc		h	Rhiz1		5	6			378	294	0	3.6	14.4	1042		11	8	9	5	3	0
Carex digitata	Cype	N		s	0.04	15		p		hc		h	0		5	3	c		39	0	0	3.3	15.5	859		1, 16	5	5	8	4	0
Carex dioica	Cype	N		n	-0.35	30		p		hc		h	Rhiz1		2	6			1100	204	0	2.7	13.2	1404		11	8	9	6	2	0
Carex distans	Cype	N		n	-0.47	72		p		hc		h	0		8	3			814	213	9	4.3	15.0	1039	Co	21	8	6	7	5	3
Carex disticha	Cype	N		n	-0.03	90		p		hc		h	Rhiz2		7	4			1227	481	3	3.6	15.0	910		11	7	8	6	4	0
Carex divisa	Cype	N		s	-0.35	70		p		hc		h	Rhiz1		9	2			162	4	1	4.4	16.4	727		6	8	7	7	6	3
Carex divulsa	Cype	N		n		82		p		hc		h	0		8	4			780	247	6	4.2	15.8	844		3, 6, 7	7	4	7	6	0
Carex echinata	Cype	N		n	-0.75	40		p		hc		h	0		5	3			2100	783	4	3.4	14.1	1207		11, 12, 14	8	8	3	2	0
Carex elata	Cype	N		n	-0.32	95		p		Hy	hc	h	0		7	5			294	225	0	3.8	15.2	903		11	7	10	7	5	0
Carex elongata	Cype	N		s	0.06	80		p		hc		h	0		5	4	c		72	18	0	3.6	15.5	899		1	5	8	6	6	0
Carex ericetorum	Cype	N		s	-0.46	17		p		hc		h	Rhiz1		5	4	c		33	0	0	2.9	15.3	801		7	8	4	7	1	0
Carex extensa	Cype	N		n	-0.23	40		p		hc		h	0gr		8	3			440	199	9	4.5	14.5	1228	Co	21	8	7	7	5	4
Carex filiformis	Cype	N		r	0.23	50		p		hc		h	Rhiz2		7	4	c		13	0	0	3.5	16.3	708		6, 7	7	7	8	5	0
Carex flacca	Cype	N		n	0.53	50		p		hc		h	Rhiz2		8	3			2706	950	10	3.5	14.5	1104		7, 11	7	5	6	2	0
Carex flava	Cype	N	VU	r		70		p		hc		h	0		5	3			1	0	0	3.2	14.7	1585		1, 11	7	9	8	2	0
Carex hirta	Cype	N		n	0.17	70		p		hc		h	Rhiz2		7	3			1958	576	10	3.7	15.0	963		6	7	7	7	6	0
Carex hostiana	Cype	N		n	-0.05	57		p		hc		h	0		7	3			1578	423	0	3.2	13.8	1290		11	8	9	6	2	0
Carex humilis	Cype	N		s	-0.01	10		p		hc		h	0gr		7	5	c		30	0	0	3.9	16.1	845		7	8	3	8	2	0
Carex lachenalii	Cype	N		r	-0.22	20		p		hc		h	Rhiz1		1	6			9	0	0	-1.1	10.4	1948		11, 15	8	7	4	1	0
Carex laevigata	Cype	N		n	-0.01	120		p		hc		h	0		7	1			1012	297	6	3.6	14.4	1240		1, 16	5	8	5	4	0
Carex lasiocarpa	Cype	N		n	0.73	120		p		Hy	hc	h	Rhiz2		4	6			461	169	0	3.1	13.6	1383		11	8	10	6	3	0
Carex limosa	Cype	N		n	0.14	40		p		Hy	hc	h	Rhiz2		4	6			423	198	0	3.3	13.4	1431		11, 12	8	10	4	1	0
Carex magellanica	Cype	N		s	-0.02	40		p		hc		h	Rhiz1		4	6			131	8	0	1.7	12.8	1808		12	9	9	2	1	0
Carex maritima	Cype	N		s	-1.34	18		p		hc		h	Rhiz2		1	6			83	0	0	3.6	12.9	964	Co	19	9	8	7	2	3
Carex microglochin	Cype	N	VU	r		12		p		hc		h	Rhiz2		1	3			1	0	0	-0.7	11.0	1855		11	9	9	8	2	0
Carex montana	Cype	N		s	0.68	35		p		hc		h	Rhiz1		7	3	c		48	0	0	4.0	15.5	1193		6, 8	7	6	4	1	0
Carex muricata	Cype	N		n		85		p		hc		h	0		8	4			912	65	11	3.8	15.4	939		3, 7, 8	7	4	6	4	0
Carex nigra	Cype	N		n	-0.01	70		p		hc		h	Rhiz2		5	4			2582	876	5	3.5	14.3	1131		11	7	8	4	2	0
Carex norvegica	Cype	N	VU	r		30		p		hc		h	0		1	6			6	0	0	-0.8	10.8	1901		15	8	7	7	2	0
Carex ornithopoda	Cype	N		r	0.28	15		p		hc		h	0		4	3			15	0	0	2.1	13.8	1272		7, 16	8	3	9	3	0
Carex otrubae	Cype	N		n	-0.14	100		p		hc		h	0		8	4			1636	405	9	4.0	15.3	939		11	6	8	7	7	2
Carex ovalis	Cype	N		n	-0.21	90		p		hc		h	0		5	4			2422	743	7	3.4	14.3	1138		3, 10	7	7	5	4	0
Carex pallescens	Cype	N		n	-0.51	60		p		hc		h	0		5	4			1596	183	1	3.0	14.2	1236		1	6	6	5	4	0
Carex panicea	Cype	N		n	-0.31	50		p		hc		h	Rhiz2		5	3			2526	897	6	3.5	14.3	1139		11	8	8	4	2	0
Carex paniculata	Cype	N		n	-0.11	150		p		hc	Hy	h	0		7	3			1516	500	5	3.7	14.9	1036		1, 11	6	9	6	6	0
Carex pauciflora	Cype	N		n	-0.59	25		p		hc		h	Rhiz1		4	6			377	4	0	1.7	12.1	1789		12	8	9	1	1	0
Carex pendula	Cype	N		n	1.30	150		p		hc		h	0		8	3			1409	305	10	3.9	15.3	928		1, 14	5	8	7	6	0
Carex pilulifera	Cype	N		n	-0.04	35		p		hc		h	0		7	3			2111	441	8	3.3	14.1	1197		8	7	5	3	2	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Carex pseudocyperus	Cype	N		n	-0.27	90		p		hc	Hy	h	0		7	4			672	72	3	3.8	16.0	754		11	7	9	6	6	0
Carex pulicaris	Cype	N		n	-0.51	30		p		hc		h	Rhiz1		7	2			1874	656	4	3.3	13.9	1239		11, 16	8	7	5	2	0
Carex punctata	Cype	N		s	0.15	72		p		hc		h	0		8	2			56	42	7	5.3	15.4	1125	Co	18	9	7	7	3	3
Carex rariflora	Cype	N		r	0.28	20		p		hc		h	Rhiz1		1	6			17	0	0	-1.2	10.6	1541		15	8	9	3	2	0
Carex recta	Cype	N	VU	r		85		p		hc	Hy	h	Rhiz2		4	1			4	0	0	3.1	13.1	936		11	8	9	7	5	3
Carex remota	Cype	N		n	0.04	67		p		hc		h	0		7	3			1879	675	5	3.7	14.8	1063		1, 14	4	8	6	6	0
Carex riparia	Cype	N		n	0.18	130		p		hc	Hy	h	Rhiz2		7	4			1186	160	4	3.9	15.7	814		11, 14	7	9	7	7	0
Carex rostrata	Cype	N		n	-0.19	100		p		Hy	hc	h	Rhiz2		5	6			1924	731	0	3.3	14.0	1193		11	8	10	4	2	0
Carex rupestris	Cype	N		s	0.27	20		p		hc		h	Rhiz1		1	6			31	0	0	0.7	11.5	1699		15, 16	8	4	7	2	0
Carex saxatilis	Cype	N		s	-0.35	35		p		hc		h	Rhiz2		1	6			71	0	0	0.3	11.3	2262		15	8	9	7	3	0
Carex spicata	Cype	N		n		85		p		hc		h	0		7	3			1043	48	1	3.6	15.7	823		3, 6, 7	7	6	6	4	0
Carex strigosa	Cype	N		n	0.60	72		p		hc		h	0		7	2			417	102	0	3.8	15.7	841		1, 14	3	8	7	6	0
Carex sylvatica	Cype	N		n	0.05	70		p		hc		h	0		7	5			1899	608	2	3.6	14.8	1050		1	4	5	6	5	0
Carex vaginata	Cype	N		s	0.05	40		p		hc		h	Rhiz2		2	6			83	0	0	-0.1	11.3	1904		15	7	6	6	3	0
Carex vesicaria	Cype	N		n	-0.52	120		p		Hy	hc	h	Rhiz1		5	6			913	230	1	3.3	14.6	1072		11	8	10	5	4	0
Carex viridula	Cype	N		n	-0.01	60		p		hc		h	0		5	6			2337	855	9	3.5	14.2	1169		11, 14, 19	8	8	6	2	0
Carex viridula subsp.brachyrrhyncha	Cype	N		n		70		p		hc		h	0		7	3			1168	434	2	3.1	13.9	1200		11,14	8	9	8	2	1
Carex viridula subsp.oedocarpa	Cype	N		n		50		p		hc		h	0		5	2			2203	761	6	3.4	14.2	1194		14	8	8	4	2	0
Carex viridula subsp.viridula	Cype	N		n		25		p		hc		h	0		5	3			477	179	5	3.8	13.9	1278		11, 19	8	7	7	3	1
Carex vulpina	Cype	N	VU	r	-0.57	100		p		hc		h	0		7	4	c		24	0	0	3.9	16.4	731		13	7	9	8	6	0
Carlina vulgaris	Aste	N		n	-0.85	60		b		hc		h	0		7	4			1131	243	10	3.9	15.3	947		7	8	4	7	2	0
Carpinus betulus	Betu	N		n	0.84	3000		p		Ph		w	0		7	3			1488	52	9	3.6	15.4	895		1	4	5	5	6	0
Carpobrotus edulis	Aizo	AN			0.05	25		p		Ch		w	Node2					SAf	79	8	10	5.7	15.9	962	Co	18, 19	9	3	4	5	3
Carum carvi	Apia	AR			-2.22	60		b		hc		h	0					Eur?, As1?	303	30	2	3.6	15.0	868		3, 6, 17	8	5	7	6	1
Carum verticillatum	Apia	N		n	0.22	60		p		hc		h	0		8	1			296	42	1	3.4	13.9	1578		11, 14	7	8	4	2	0
Castanea sativa	Faga	AR			0.59	3000		p		Ph		w	0					Eur	1693	140	12	3.6	15.2	950		1	5	5	5	5	0
Catabrosa aquatica	Poac	N		n	-0.69	72		p		Hy	hc	h	Node2		5	3			955	304	3	3.8	15.0	936		13, 14	6	9	7	7	1
Catapodium marinum	Poac	N		n	0.52	25		a		Th		h	0		9	1			463	172	14	4.8	15.1	1027	Co	18	9	5	7	3	3
Catapodium rigidum	Poac	N		n	0.35	15		a		Th		h	0		9	2			1216	494	10	4.1	15.5	878		7, 17	8	3	7	2	0
Centaurea calcitrapa	Aste	AR	VU		-2.34	60		b		hc		h	0					Eur	153	1	3	4.0	16.1	744		3	7	4	7	3	0
Centaurea cyanus	Aste	AR	EN		-0.39	80		a		Th		h	0		7	3			884	56	5	3.8	15.4	836		3, 4, 17	7	5	6	5	0
Centaurea nigra	Aste	N		n	-0.25	80		p		hc		h	0		7	2			2658	975	11	3.6	14.5	1093		6, 7	7	5	6	5	0
Centaurea scabiosa	Aste	N		n	-0.49	105		p		hc		h	0		7	4			1239	125	2	3.8	15.6	832		6, 7	8	3	8	3	0
Centaurium erythraea	Gent	N		n	0.03	50		b		hc		h	0		8	3			1811	710	14	4.0	15.1	980		7, 19	8	5	6	3	0
Centaurium littorale	Gent	N		s	0.03	26		b		hc		h	0		7	3			111	3	0	3.8	14.3	1063	Co	19, 21	9	7	8	3	1
Centaurium pulchellum	Gent	N		n	0.10	20		a		Th		h	0		8	4			457	17	8	4.4	16.1	841	Co	21	8	8	8	3	1
Centaurium scilloides	Gent	N	VU	r		15		p		Ch		h	0		8	0			3	0	0	5.8	15.4	1170		10	9	3	5	2	0
Centaurium tenuiflorum	Gent	N	VU	r		35		a		Th		h	0		9	1			3	0	2	5.5	16.5	825	Co	18	8	6	7	4	0
Centranthus ruber	Vale	AN			1.15	80		p		Ch	hc	h	0					Eur	1361	357	14	4.0	15.5	896		3, 16, 17, 18	8	4	8	5	1
Cephalanthera damasonium	Orch	N		n	-0.94	55		p		Gn		h	0		7	3			233	0	0	3.7	16.2	763		1	4	4	7	5	0
Cephalanthera longifolia	Orch	N		s	-0.77	60		p		Gn		h	0		7	3			131	31	0	3.7	14.7	1166		1	5	4	7	4	0
Cephalanthera rubra	Orch	N	CR	r		55		p		Gn		h	0		7	3			10	0	0	3.8	16.2	797		1	4	3	8	4	0
Cerastium alpinum	Cary	N		s	-0.84	12		p		Ch		h	Node1		1	3			77	0	0	0.4	11.4	2003		15, 16	9	5	6	2	0
Cerastium arcticum	Cary	N		s	-0.37	12		p		Ch		h	Rhiz1		1	3			46	0	0	0.8	11.3	2178		15, 16	7	6	4	2	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Cerastium arvense	Cary	N		n	-1.05	30		p		Ch		h	Rhiz2		5	6			814	39	0	3.3	15.3	773		8	8	4	5	3	0
Cerastium brachypetalum	Cary	AN				30		a		Th		h	0		8	3		Eur	2	0	0	3.4	16.3	657		3, 7	9	3	8	2	0
Cerastium cerastoides	Cary	N		s	-0.05	12		p		Ch		h	Node1		1	3			29	0	0	-0.4	10.8	1994		15	8	8	5	4	0
Cerastium diffusum	Cary	N		n	0.38	23		a		Th		h	0		7	3			1174	247	12	4.0	14.6	1062	Co	18, 19	9	4	6	3	1
Cerastium fontanum	Cary	N		n	1.40	30		p		Ch		h	Rhiz1	Node1	5	4			2805	985	14	3.5	14.4	1106		6	7	5	5	4	0
Cerastium glomeratum	Cary	N		n	1.44	30		a		Th		h	0		8	3			2631	823	14	3.6	14.5	1079		3, 5	7	5	6	5	0
Cerastium nigrescens	Cary	NE	VU	r		5		p		Ch		h	0		4	1			2	0	0	3.0	11.5	1256		16	9	3	5	1	0
Cerastium pumilum	Cary	N		s	-0.17	11		a		Th		h	0		7	3			87	0	0	4.1	16.2	806		7	8	2	8	1	0
Cerastium semidecandrum	Cary	N		n	0.50	14		a		Th		h	0		7	3			1117	61	12	3.7	15.3	846		8, 18, 19	8	3	6	3	0
Cerastium tomentosum	Cary	AN			2.97	30		p		Ch		h	Rhiz2	Node2				Eur	1303	140	8	3.7	15.2	898		3, 17, 19	8	3	7	5	1
Ceratocapnos claviculata	Fuma	N		n	0.57	75		a		Th		h	0		7	1			1122	20	2	3.3	14.6	1111		1, 9	5	5	4	5	0
Ceratochloa carinata	Poac	AN			2.09	80		p		hc		h	0					Am4	183	1	2	3.8	16.1	744		3, 4	8	5	6	6	0
Ceratochloa cathartica	Poac	AN			0.63	100		p		hc		h	0					Am, SAm	184	0	9	4.2	16.1	796		3, 4	7	4	5	5	0
Ceratophyllum demersum	Cera	N		n	0.87		100	p		Hy		h	Irreg		8	6			927	62	1	3.7	15.8	770		13	7	12	7	7	1
Ceratophyllum submersum	Cera	N		n	0.39		100	p		Hy		h	Irreg		7	4			208	3	5	3.9	16.3	705		13	7	12	8	8	2
Ceterach officinarum	Aspl	N		n	-0.30	20		p		hc		h	0		9	2			1093	787	9	4.0	15.0	1061		3, 16	7	3	8	1	0
Chaenorhinum minus	Scro	AR			-0.63	25		a		Th		h	0		7	3			1468	170	0	3.6	15.3	899		3, 4, 17	8	4	7	4	0
Chaerophyllum temulum	Apia	N		n	-0.64	100		b		hc		h	0		7	3			1786	0	5	3.6	15.4	890		3	6	5	7	7	0
Chamaecyparis lawsoniana	Cupr	AN				4100		p		Ph		w	0					Am4	827	46	4	3.6	15.3	965		17	5	5	6	4	0
Chamaemelum nobile	Aste	N		n	-0.92	30		p		hc		h	Node2		8	2			308	115	13	4.6	15.7	990		8	8	7	5	5	0
Chamerion angustifolium	Onag	N		n	-0.01	150		p		Gn	hc	h	Root		5	6			2603	650	10	3.4	14.5	1075		3, 17	6	5	6	5	0
Chelidonium majus	Papa	AR			-0.72	90		p		hc		h	0		7	5			1662	220	9	3.7	15.3	905		3	6	5	8	7	0
Chenopodium album	Chen	N		n		100		a		Th		h	0		6	5			2340	782	14	3.7	14.8	1018		4	7	5	7	7	1
Chenopodium album agg.	Chen	N		n	-0.73	100		a		Th		h	0		6	5			2340	782	14	3.7	14.8	1018		4	7	5	7	7	1
Chenopodium bonus-henricus	Chen	AR			-1.79	50		p		hc		h	0					Eur	1363	81	1	3.4	15.2	883		3	8	5	7	8	0
Chenopodium chenopodioides	Chen	N		s	-0.17	30		a		Th		h	0		7	4			39	0	2	4.2	16.7	612	Co	6, 21	8	7	7	8	4
Chenopodium ficifolium	Chen	AR			1.90	90		a		Th		h	0		7	4			745	11	7	3.9	16.1	745		4	7	6	6	7	0
Chenopodium glaucum	Chen	AR			-1.32	50		a		Th		h	0		7	6			157	2	2	4.0	16.1	724		17	8	6	7	9	3
Chenopodium hybridum	Chen	AR			-0.32	100		a		Th		h	0		7	6			285	0	1	3.7	16.2	695		4	7	4	7	7	0
Chenopodium murale	Chen	AR			-1.63	100		a		Th		h	0		8	4			412	8	13	4.2	16.0	797		4	8	6	6	7	0
Chenopodium polyspermum	Chen	AR			0.62	50		a		Th		h	0		7	4			998	8	12	3.9	16.0	794		4	7	6	7	8	0
Chenopodium rubrum	Chen	N		n	1.00	70		a		Th		h	0		7	4			1267	142	8	3.8	15.7	800		4, 11	7	7	7	8	1
Chenopodium urbicum	Chen	AR			-4.57	100		a		Th		h	0		7	4			239	1	0	4.0	16.1	762		4	7	5	7	7	0
Chenopodium vulvaria	Chen	AR	VU		-2.60	35		a		Th		h	0		8	4			180	0	6	4.1	16.1	752	Co	18, 19	7	4	7	9	0
Chrysanthemum segetum	Aste	AR			-1.80	60		a		Th		h	0		8	3			1682	471	10	3.8	14.8	1022		4	7	5	6	5	0
Chrysosplenium alternifolium	Saxi	N		n	0.62	20		p		hc		h	Stol2		3	6			790	0	0	2.8	14.4	1042		11, 14	5	8	6	6	0
Chrysosplenium oppositifolium	Saxi	N		n	-0.36	15		p		Ch	hc	h	Node2		7	2			2067	688	6	3.4	14.3	1168		1, 14	5	9	5	5	0
Cicendia filiformis	Gent	N		s	-0.70	10		a		Th		h	0		9	2			66	37	5	5.4	15.6	1063		10	9	8	3	2	0
Cicerbita alpina	Aste	N	VU	r		130		p		hc		h	Rhiz2		4	3			4	0	0	-1.3	10.5	1375		15, 16	7	6	6	6	0
Cicerbita macrophylla	Aste	AN				175		p		hc		h	Rhiz2					Eur	724	42	0	3.3	14.9	920		3, 17	7	5	6	6	0
Cichorium intybus	Aste	AR			-1.27	110		p		hc		h	0		8	4			1312	60	10	3.8	15.5	840		3	8	4	7	5	0
Cicuta virosa	Apia	N		s	0.55	150		p		Hy		h	0		5	5	c		139	139	0	3.5	14.8	926		11, 13, 14	7	10	7	5	0
Circaea alpina	Onag	N		s		30		p		Gn		h	Rhiz2		4	6			40	0	0	2.2	13.0	1836		1	4	7	5	5	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Circaea alpina x lutetiana (C. x intermedia)	Onag	NH		n	0.48	45		p		Gn		h	Rhiz2		7	3			570	49	0	2.7	13.4	1477		1	4	6	6	6	0
Circaea lutetiana	Onag	N		n	-0.38	60		p		Gn		h	Rhiz2		7	3			2053	748	8	3.7	14.9	1041		1	4	6	7	6	0
Cirsium acaule	Aste	N		n	-0.52	15		p		hc		h	Rhiz1		7	3			734	0	3	3.7	16.1	742		7	9	4	8	3	0
Cirsium arvense	Aste	N		n	0.47	120		p		Gn		h	Root		7	5			2736	968	14	3.6	14.5	1092		3, 4, 6	8	6	7	6	0
Cirsium dissectum	Aste	N		n	-0.14	60		p		hc		h	Rhiz1		7	1			539	553	2	4.0	15.0	1043		11	8	8	4	2	0
Cirsium eriophorum	Aste	N		n	-0.08	150		b		hc		h	0		7	3			447	0	0	3.6	16.0	745		7	8	4	8	5	0
Cirsium heterophyllum	Aste	N		n	-0.44	120		p		hc		h	Rhiz1		4	4			761	1	0	2.0	12.9	1476		6, 16	7	6	6	5	0
Cirsium palustre	Aste	N		n	0.15	175		b		hc		h	0		5	4			2697	955	12	3.5	14.5	1105		11, 14	7	8	5	4	0
Cirsium tuberosum	Aste	N	VU	r	0.41	80		p		hc		h	0		8	2			17	0	0	3.9	16.1	882		7	8	6	8	3	0
Cirsium vulgare	Aste	N		n	0.80	150		b		hc		h	0		7	4			2789	980	14	3.5	14.5	1103		3, 5, 6, 7	7	5	6	6	0
Cladium mariscus	Cype	N		n	0.11	200		p		Hy	Gn	h	Rhiz1		8	4			232	258	1	4.1	14.7	1085		11	8	10	8	4	0
Claytonia perfoliata	Port	AN			0.50	30		a		Th		h	0					Am4	704	6	10	3.6	15.6	768		4, 17, 19	6	6	5	5	0
Claytonia sibirica	Port	AN			1.28	40		a	p	Th	hc	h	0					As2, Am4	1166	25	6	3.2	14.4	1092		1, 3	5	7	6	6	0
Clematis vitalba	Ranu	N		n	0.00	3000		p		Ph		w	0		7	3			954	0	0	4.0	16.0	815		3	6	4	8	5	0
Clinopodium acinos	Lami	N		n	-1.59	22		a		Th		h	0		7	3			551	0	0	3.6	15.8	778		16	8	2	8	1	0
Clinopodium ascendens	Lami	N		n	0.04	60		p		hc		h	Rhiz1		7	3			657	64	2	4.2	15.9	854		3, 16	7	5	7	6	0
Clinopodium calamintha	Lami	N		s	-0.31	60		p		hc		h	Rhiz2		9	2			129	0	4	3.7	16.4	641		3	8	3	9	3	0
Clinopodium menthifolium	Lami	N	EN	r		60		p		hc		h	Rhiz1		7	3			1	0	0	4.8	16.3	844		1	5	5	8	5	0
Clinopodium vulgare	Lami	N		n	-0.67	77		p		hc		h	Rhiz1		7	6			1317	0	2	3.5	15.4	880		7	7	4	7	4	0
Cochlearia anglica	Bras	N		n	0.02	40		b		hc		h	0		7	1			297	95	0	4.5	15.6	917	Co	21	8	8	7	6	6
Cochlearia atlantica	Bras	NE	DD	r		20		p		hc		h	0		4	1			2	0	0	4.4	12.8	1830	Co	18	8	6	7	5	4
Cochlearia danica	Bras	N		n	3.31	25		a		Th		h	0		7	1			588	138	14	4.5	14.9	1056	Co	3, 18	9	6	7	5	4
Cochlearia micacea	Bras	NE		s		10		b	p	hc		h	0		1	1			32	0	0	0.2	11.4	2221		15	8	8	7	2	0
Cochlearia officinalis	Bras	N		n		30		p		hc		h	0		3	6			1051	279	2	3.9	14.0	1246	Co	18, 21	8	6	7	5	3
Cochlearia officinalis sens.lat.	Bras	N		n	-0.18	30		b	p	hc		h	0		3	6			1245	308	3	3.7	13.9	1287		18	8	7	7	4	2
Cochlearia pyrenaica	Bras	N		s		30		b	p	hc		h	0		1	3			124	5	0	1.5	12.9	1567		11, 16	8	7	8	3	0
Coeloglossum viride	Orch	N		n	-1.34	22		p		Gn		h	0		4	6			964	214	0	3.2	14.1	1148		7	7	4	6	2	0
Coincya monensis	Bras	N		s	0.43	50		b		hc		h	0		8	2			61	0	3	4.2	14.8	1037		3, 17, 19	9	4	6	3	0
Coincya wrightii	Bras	NE	VU	r		90		p		Ch	hc	h	0		7	1			1	0	0	5.8	15.7	986	Co	18	9	4	4	3	0
Colchicum autumnale	Lili	N		n	-0.14	35		p		Gn		h	0tb		7	3			301	10	0	3.6	15.8	809		6	6	6	6	4	0
Colutea arborescens	Faba	AN				400		p		Ph		w	0					Eur	166	3	0	3.7	16.3	671		3, 17	7	4	8	3	0
Conium maculatum	Apia	AR			-0.02	250		b		hc		h	0		8	4			1847	476	13	3.9	15.2	915		3	8	5	7	8	0
Conopodium majus	Apia	N		n	-0.19	40		p		Gn		h	0		7	1			2520	755	7	3.5	14.5	1102		1, 6	6	5	5	5	0
Consolida ajacis	Ranu	AN				60		a		Th		h	0					Eur	360	4	7	3.8	16.2	703		3, 4, 17	8	4	8	4	0
Convallaria majalis	Lili	N		n	0.25	25		p		Gn		h	Rhiz2		5	3			439	0	0	3.3	15.5	831		1, 7	5	5	6	5	0
Convolvulus arvensis	Conv	N		n	-0.70	100		p		Gn		h	Rhiz2		8	4			1841	435	14	3.8	15.2	929		3, 4	7	4	8	6	0
Conyza canadensis	Aste	AN			1.12	100		a		Th		h	0					Am	1048	11	10	3.8	16.0	766		3, 4, 17, 19	7	4	7	6	0
Corallorhiza trifida	Orch	N		s	0.61	22		p		Gn		h	0		4	6	c		102	0	0	2.5	13.5	956		1, 2	5	5	5	4	0
Coriandrum sativum	Apia	AN				50		a		Th		h	0					Eur?	201	2	3	3.9	16.0	763		3, 17	8	4	6	5	0
Cornus sanguinea	Corn	N		n	-0.06	400		p		Ph		w	Root		7	3			1179	52	1	3.7	15.8	810		1, 3	7	5	7	6	0
Cornus sericea	Corn	AN				300		p		Pn	Ph	w	0	Node1				Am	421	111	0	3.5	15.0	936		1, 3, 17	6	7	5	6	0
Cornus suecica	Corn	N		n	-0.42	20		p		hc		h	Rhiz2		2	3			218	0	0	0.9	11.6	1853		10, 15	6	6	1	2	0
Coronopus didymus	Bras	AN			1.77	18		a		Th		h	0					Unk	1284	315	14	4.1	15.5	921		4, 17	9	5	6	7	0
Coronopus squamatus	Bras	AR			0.33	25		a		Th		h	0		8	3			1290	149	9	4.0	15.7	821		3, 4	7	5	7	7	0
Corrigiola litoralis	Cary	N	CR	r	-0.96	25		a		Th		h	0		8	2			2	0	0	6.2	16.0	1052	Co	19	8	7	5	5	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Corylus avellana	Betu	N		n	-0.54	600		p		Ph		w	0		7	3			2470	870	5	3.5	14.6	1094		1, 3	4	5	6	6	0
Corynephorus canescens	Poac	N		r	0.01	32		p		hc		h	0		8	3			22	0	3	4.1	16.2	649	Co	19	9	1	3	1	0
Cotoneaster bullatus	Rosa	AN				400		p		Ph		w	0					As1	237	10	0	3.7	15.3	965		1, 3, 16, 17	7	4	7	4	0
Cotoneaster cambricus	Rosa	AN	EN			150		p		Pn		w	0		7	1		Eur	1	0	0	5.4	15.5	796		7, 16	8	3	7	2	0
Cotoneaster horizontalis	Rosa	AN				100		p		Pn		w	0					As1	855	63	2	3.8	15.5	933		3, 16, 17	8	3	8	4	0
Cotoneaster integrifolius	Rosa	AN				100		p		Pn		w	0					As1	537	103	2	3.9	14.7	1194		3, 17	7	3	7	4	0
Cotoneaster microphyllus agg.	Rosa	AN			1.54	100		p		Pn		w	0					As1	576	135	3	3.9	14.7	1174		3, 16, 17	7	3	7	4	0
Cotoneaster simonsii	Rosa	AN			3.55	300		p		Pn	Ph	w	0					As1	973	122	5	3.7	14.9	1086		3, 10, 16, 17	6	5	6	4	0
Crambe maritima	Bras	N		n	0.29	62		p		hc		h	0		7	3			251	46	11	4.8	15.5	938	Co	19	9	5	8	7	3
Crassula aquatica	Cras	NA	VU	r		8		a		Hz		h	0	Node1	7	6	c		2	0	0	3.2	14.0	1459		14	8	9	5	5	0
Crassula helmsii	Cras	AN				10	30	p		Hy	Ch	h	Irreg	Node2				Aus, NZ	604	8	8	3.8	15.8	826		13, 14	7	10	6	7	0
Crassula tillaea	Cras	N		s	0.86	5		a		Th		h	0		9	2			104	0	11	4.1	16.2	734		3	8	7	4	2	0
Crataegus laevigata	Rosa	N		n	0.32	1000		p		Ph		w	0		7	3			597	0	1	3.5	16.2	674		1	5	5	7	5	0
Crataegus monogyna	Rosa	N		n	-0.76	1000		p		Ph		w	0		7	3			2496	946	13	3.6	14.7	1073		1, 3	6	5	7	6	0
Crepis biennis	Aste	N		n	-0.02	120		b		hc		h	0		7	3			288	0	0	3.7	16.3	711		3, 6	8	5	7	6	0
Crepis capillaris	Aste	N		n	-0.17	75		a	b	Th	hc	h	0		7	3			2525	907	14	3.6	14.6	1074		7	7	4	7	4	0
Crepis foetida	Aste	AR	EN			60		b	a	hc	Th	h	0		8	4			33	0	2	4.0	16.4	707	Co	19	9	4	6	3	0
Crepis mollis	Aste	N		r	-1.20	60		p		hc		h	0		7	3	c		75	0	0	1.7	13.2	1079		7	8	5	7	5	0
Crepis paludosa	Aste	N		n	-0.27	80		p		hc		h	0		5	3			1162	357	0	2.7	13.4	1334		11, 16	6	7	6	4	0
Crepis praemorsa	Aste	N	EN	r		60		p		hc		h	0		7	4	c		1	0	0	1.7	13.3	1333		7	8	3	9	3	0
Crepis vesicaria	Aste	AN			0.60	80		b		hc		h	0					Eur	1227	302	14	4.1	15.7	858		3, 5, 6, 17	8	5	7	7	0
Crithmum maritimum	Apia	N		n	0.23	45		p		hc		h	0		9	1			301	138	14	5.1	15.4	1042	Co	18	9	6	7	5	5
Crocosmia aurea x pottsii (C. x crocosmiiflora)	Irid	AN			3.11	60		p		Gn		h	Rhiz1	DRg				Gard	1446	731	12	4.0	14.6	1129		1, 3, 17	7	6	4	4	0
Cruciata laevipes	Rubi	N		n	-0.77	60		p		hc		h	Rhiz2		7	4			1475	0	1	3.2	15.2	892		6	6	5	7	5	0
Cryptogramma crispa	Adia	N		n	-0.63	15		p		hc		h	0		4	3			466	23	0	1.8	12.9	1678		10, 15, 16	7	5	2	3	0
Cuscuta epithymum	Cusc	N		n	-1.28	1		a		Th		h	Stol2		8	4			494	27	12	4.3	15.9	846		10	7	6	2	2	0
Cuscuta europaea	Cusc	N		s	0.04	2		a		Th		h	Stol2		7	4			126	0	0	3.7	16.4	679		14	6	7	6	7	0
Cymbalaria muralis	Scro	AN			-0.10	8		p		Ch		h	Node2					Eur	2059	619	14	3.7	15.0	990		3, 16, 17, 19	7	5	7	6	0
Cynodon dactylon	Poac	NA	VU	r	-0.10	30		p		hc		h	Rhiz2	Node2	8	5			2	0	0	6.4	15.6	1156		3, 5, 17	8	4	7	5	0
Cynoglossum germanicum	Bora	N	VU	r	-0.52	75		p		hc		h	0		7	3	c		50	0	0	3.7	16.5	676		1	6	5	8	7	0
Cynoglossum officinale	Bora	N		n	-1.09	75		p		hc		h	0		7	4			718	42	5	3.9	15.8	780		7, 19	8	4	8	6	1
Cynosurus cristatus	Poac	N		n	0.02	75		p		hc		h	0		7	3			2745	962	13	3.5	14.5	1103		6	7	5	6	4	0
Cyperus fuscus	Cype	N	VU	r	-0.32	20		a		Th		h	0		8	4			11	0	2	4.4	16.6	758		13	9	8	5	4	0
Cyperus longus	Cype	N		s	2.22	100		p		hc		h	Rhiz1		8	3			33	0	12	5.7	16.1	943		11, 13	8	9	7	5	0
Cypripedium calceolus	Orch	N	CR	r		30		p		Gn		h	Rhiz1		5	6	c		22	0	0	2.2	13.9	1270		7	5	4	8	4	0
Cystopteris dickieana	Wood	N	VU	r		20		p		hc		h	0		?	?			5	0	0	0.9	12.3	1379		16	5	7	8	2	0
Cystopteris fragilis	Wood	N		n	-0.69	20		p		hc		h	0		3	6			1118	191	0	2.6	13.5	1361		16	6	7	8	4	0
Cystopteris montana	Wood	N		r	-0.25	15		p		hc		h	Rhiz2		4	6			22	0	0	-0.2	11.3	2151		15, 16	5	7	9	2	0
Cytisus scoparius	Faba	N		n	0.00	200		p		Pn		w	0		7	3			2288	553	10	3.4	14.6	1085		3	8	5	4	4	0
Daboecia cantabrica	Eric	N		o	0.12	50		p		Ch	Pn	w	0		8	1			0	33	0	4.5	14.4	1265		10	8	5	3	2	0
Dactylis glomerata	Poac	N		n	-0.06	120		p		hc		h	0		8	4			2707	981	14	3.6	14.5	1091		6	7	5	7	6	0
Dactylorhiza fuchsii	Orch	N		n	0.33	50		p		Gn		h	0		7	4			2214	774	5	3.5	14.7	1063		11	7	8	7	3	0
Dactylorhiza incarnata	Orch	N		n	-0.33	45		p		Gn		h	0		5	4			1189	331	3	3.6	14.4	1127		11	8	9	6	2	0
Dactylorhiza lapponica	Orch	N		s		21		p		Gn		h	0		4	3			18	0	0	3.2	12.5	1910		11	8	8	6	2	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Dactylorhiza maculata	Orch	N		n	-0.42	40		p		Gn		h	0		5	4			2018	687	7	3.4	14.1	1221		12	7	7	3	2	0
Dactylorhiza majalis	Orch	N		r	-0.41	30		p		Gn		h	0		7	3			26	159	0	4.7	14.4	1237		11	7	7	5	3	0
Dactylorhiza praetermissa	Orch	N		n	0.84	50		p		Gn		h	0		7	1			1009	0	5	3.9	15.9	849		11	8	8	7	3	0
Dactylorhiza purpurella	Orch	N		n	0.47	25		p		Gn		h	0		4	1			1202	151	0	3.1	13.5	1244		11	8	8	7	2	1
Dactylorhiza traunsteineri	Orch	N		s	0.78	30		p		Gn		h	0		5	4			74	40	0	3.9	14.9	978		11	8	8	7	2	0
Damasonium alisma	Alis	N	EN	r	-0.52	30		a		Hz		h	0		9	1			54	0	0	3.9	16.5	707		13	8	10	5	3	0
Danthonia decumbens	Poac	N		n	-0.40	40		p		hc		h	0		7	3			2368	814	11	3.5	14.3	1160		7, 8	7	6	4	2	0
Daphne laureola	Thym	N		n	0.10	100		p		Pn		w	0		9	2			844	0	6	3.7	16.0	760		1	4	5	7	5	0
Daphne mezereum	Thym	NA		s	-0.06	100		p		Pn		w	0		5	4			110	0	0	3.5	15.8	890		1	4	5	7	6	0
Datura stramonium	Sola	AN			-0.71	100		a		Th		h	0					Am?	801	7	11	3.9	15.9	796		17	8	4	7	8	1
Daucus carota	Apia	N		n	-0.59	100		b		hc		h	0		8	4			1845	797	14	4.0	15.0	989		6, 7	8	4	7	3	2
Daucus carota subsp.sativus	Apia	AC				120		b		hc		h	0					Crop	39	1	1	3.6	14.7	913		17	7	5	7	8	0
Deschampsia cespitosa	Poac	N		n	-0.09	150		p		hc		h	0	DRi	3	6			2684	837	3	3.5	14.4	1099		1, 6	6	6	5	4	0
Deschampsia flexuosa	Poac	N		n	-0.22	60		p		hc		h	0gr		5	3			2298	440	3	3.2	14.1	1177		8, 10	6	5	2	3	0
Deschampsia setacea	Poac	N		s	-0.04	70		p		hc		h	0		7	1			125	11	0	3.5	13.6	1211		12, 13	8	9	2	1	0
Descurainia sophia	Bras	AR			-0.29	100		a		Th		h	0		7	4			636	31	1	3.6	15.6	738		4	8	4	7	6	0
Dianthus armeria	Cary	N	VU	s	-1.31	60		a		Th		h	0		7	3			206	2	8	4.2	16.2	805		3, 16	8	5	5	3	0
Dianthus deltoides	Cary	N		s	-0.41	37		p		Ch		sw	0		5	4	c		223	0	1	3.1	15.0	797		7	8	3	5	2	0
Dianthus gratianopolitanus	Cary	N	VU	r	0.19	20		p		Ch		sw	0		7	3	c		2	0	0	3.8	15.9	979		16	9	2	7	1	0
Diapensia lapponica	Diap	N	VU	r		6		p		Ch		w	0		1	6			1	0	0	1.8	11.7	2845		15	9	3	4	1	0
Digitalis purpurea	Scro	N		n	0.72	150		b		hc		h	0		8	2			2555	797	13	3.5	14.5	1120		8, 9	6	6	4	5	0
Digitaria ischaemum	Poac	AN				35		a		Th		h	0					Eur, As	26	0	0	4.3	16.3	777		3, 4, 17	7	4	5	5	0
Digitaria sanguinalis	Poac	AN				50		a		Th		h	0					Eur	147	1	10	4.3	16.2	783		3, 4, 17	7	4	5	5	0
Diphasiastrum alpinum	Lyco	N		n	-0.51	10		p		Ch		sw	Rhiz2		1	6			539	49	0	1.9	12.4	1686		15	7	5	2	2	0
Diphasiastrum complanatum	Lyco	N		r		8		p		Ch		sw	Rhiz2		4	6	c		10	0	0	1.0	12.5	1465		10	6	4	1	2	0
Diplotaxis muralis	Bras	AN			-0.37	60		a		Th		h	0					Eur	943	59	11	4.0	15.8	810		3, 4, 16, 17	8	4	7	6	1
Diplotaxis tenuifolia	Bras	AR			-0.13	80		p		Ch	hc	h	0		7	3			585	2	13	3.9	15.9	790		3, 16, 17	8	5	7	6	1
Dipsacus fullonum	Dips	NA		n		200		b		hc		h	0		7	3			1626	150	12	3.8	15.6	863		3, 6, 17	8	7	7	7	0
Dipsacus fullonum sens.lat.	Dips	NA		n	0.82	200		b		hc		h	0		7	3			1626	150	12	3.8	15.6	863		3, 6, 17	8	7	7	7	0
Dipsacus pilosus	Dips	N		n	0.06	150		b		hc		h	0		7	3			424	0	0	3.6	16.0	729		1, 3, 16	7	6	8	7	0
Disphyma crassifolium	Aizo	AN				9		p		Ch		sw	Node2					SAf, Aus?	20	0	3	6.0	16.1	898	Co	3, 18, 19	9	3	4	5	3
Doronicum pardalianches	Aste	AN			0.89	80		p		hc		h	Rhiz1					Eur	882	14	0	3.1	14.8	921		1, 3	4	5	6	5	0
Draba aizoides	Bras	N		r		10		p		Ch		h	0		9	3			2	0	0	5.2	15.9	1191		16	8	4	9	3	0
Draba incana	Bras	N		n	-0.75	35		b		hc		h	0		2	3			225	29	0	2.3	12.5	1584		7, 16	8	5	7	2	0
Draba muralis	Bras	N		s	-0.17	50		a		Th		h	0		7	3			41	0	0	2.4	14.4	1151		3, 16	7	6	7	6	0
Draba norvegica	Bras	N		s	0.00	5		p		Ch		h	0		1	3			33	0	0	0.6	11.2	2311		15, 16	8	5	7	3	0
Drosera anglica	Dros	N		n	-0.85	13		p		hc		h	0		4	6			601	292	0	3.2	13.4	1422		11, 12	8	9	2	1	0
Drosera intermedia	Dros	N		n	-0.50	5		p		hc		h	0		7	2			508	198	0	3.7	14.1	1337		12, 14	8	9	2	1	0
Drosera rotundifolia	Dros	N		n	-0.56	5		p		hc		h	0		5	6			1736	687	2	3.3	13.9	1269		12	8	9	2	1	0
Dryas octopetala	Rosa	N		s	-0.35	10		p		Ch		w	Node2		1	6			99	25	0	2.1	12.4	1734		7, 16	8	4	7	2	0
Dryopteris aemula	Dryo	N		n	-0.04	60		p		hc		h	0		7	0			436	383	0	4.2	14.1	1373		1, 16	5	6	2	3	0
Dryopteris affinis	Dryo	N		n	2.44	80		p		hc		h	0		7	3			2272	786	12	3.5	14.3	1160		1, 16	5	6	5	5	0
Dryopteris carthusiana	Dryo	N		n	1.06	80		p		hc		h	0	Rhiz1	5	4			1623	313	0	3.3	14.6	1075		1	6	8	5	4	0
Dryopteris cristata	Dryo	N		r	-0.68	60		p		hc		h	0		7	4	c		31	0	0	3.6	15.9	659		11	6	9	4	4	0
Dryopteris dilatata	Dryo	N		n	1.32	150		p		hc		h	0		7	3			2689	932	11	3.5	14.4	1114		1, 2	5	6	4	5	0
Dryopteris expansa	Dryo	N		n		80		p		hc		h	0		4	6			247	0	0	1.7	12.0	1772		1, 15, 16	7	6	3	2	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Dryopteris filix-mas	Dryo	N		n		120		p		hc		h	0		7	6			2650	928	13	3.5	14.5	1096		1, 2	5	6	5	5	0
Dryopteris filix-mas agg.	Dryo	N		n	0.03	120		p		hc		h	0		5	6			2650	928	13	3.5	14.5	1096		1, 2	5	6	5	5	0
Dryopteris oreades	Dryo	N		n	0.24	50		p		hc		h	0		4	2			308	5	0	1.9	12.6	1810		15, 16	7	5	2	2	0
Dryopteris remota	Dryo	N		x		80		p		hc		h	0		4	3			1	1	0	2.7	13.4	1998		1, 2	6	6	4	4	0
Dryopteris submontana	Dryo	N		s	0.10	60		p		hc		h	0		9	3			33	0	0	2.1	13.7	1527		16	8	5	9	3	0
Echinochloa crus-galli	Poac	AN			0.75	120		a		Th		h	0					NHem	370	4	10	4.0	16.0	785		17	6	5	7	8	0
Echium plantagineum	Bora	AR	EN		0.36	67		b		hc		h	0		9	1			79	0	7	4.7	15.9	848		4	9	3	5	5	0
Echium vulgare	Bora	N		n	-0.24	90		b		hc		h	0		7	4			1066	41	9	3.8	15.6	822		7	8	4	7	4	1
Elatine hexandra	Elat	N		n	1.07	5	10	a	p	Hz	Hy	h	0	Node1	7	3			212	79	3	3.7	14.2	1365		13	7	10	5	4	0
Elatine hydropiper	Elat	N		s	0.66	5	10	a		Hz		h	0	Node1	5	4	c		33	19	0	3.6	14.7	1072		13	7	10	5	5	0
Eleocharis acicularis	Cype	N		n	-0.11	10		p		Hy	hc	h	Rhiz2		5	6			366	89	1	3.6	15.2	924		13, 14	7	10	7	5	1
Eleocharis austriaca	Cype	N		r		60		p		hc		h	Rhiz2		4	3			14	0	0	1.4	13.2	1348		13, 14	8	9	5	5	0
Eleocharis multicaulis	Cype	N		n	0.47	35		p		hc		h	0		7	2			962	330	7	3.7	14.0	1348		11, 12, 13	8	9	4	1	0
Eleocharis palustris	Cype	N		n	0.91	60		p		Hy	hc	h	Rhiz2		6	5			2577	756	10	3.5	14.5	1098		11	8	10	6	4	1
Eleocharis parvula	Cype	N	VU	r	0.00	8		p		hc		h	Rhiz2		7	3			15	5	0	4.6	15.3	1130	Co	21	6	9	7	5	3
Eleocharis quinqueflora	Cype	N		n	0.02	30		p		hc		h	Rhiz1		5	3			1236	267	4	3.1	13.5	1323		11	9	9	7	2	0
Eleocharis uniglumis	Cype	N		n	0.60	60		p		hc		h	Rhiz2		7	6			574	95	2	4.0	14.4	1182		11	8	9	7	4	3
Eleogiton fluitans	Cype	N		n	0.37		45	p		Hy		h	Irreg		8	1			889	286	3	3.7	14.2	1259		11	8	11	4	2	0
Elodea canadensis	Hydr	AN			0.37		300	p		Hy		h	Irreg					Am	1696	424	3	3.6	15.1	936		13, 14	7	12	7	6	0
Elodea nuttallii	Hydr	AN					300	p		Hy		h	Irreg					Am	808	15	3	3.7	15.8	836		13, 14	6	12	7	7	1
Elymus caninus	Poac	N		n	0.27	110		p		hc		h	0		5	4			1669	122	0	3.3	14.9	981		1, 3	7	6	7	8	0
Elytrigia atherica	Poac	N		n	0.32	105		p		hc		h	Rhiz2		8	3			370	41	8	4.6	15.9	863	Co	19, 21	9	6	7	6	4
Elytrigia juncea	Poac	N		n	-0.28	55		p		hc		h	Rhiz2		8	3			572	180	9	4.4	14.5	1050	Co	19	9	5	7	6	3
Elytrigia repens	Poac	N		n	-0.01	125		p		hc		h	Rhiz2		6	4			2530	837	13	3.6	14.6	1046		3, 4, 19	7	5	7	7	2
Empetrum nigrum	Empe	N		n	-0.29	30		p		Ch		w	Node2		2	6			1359	236	0	2.7	13.2	1381		10, 12, 15	7	6	2	1	0
Epilobium alsinifolium	Onag	N		n	-0.41	20		p		hc		h	Rhiz1		1	3			218	1	0	1.0	11.9	1832		11, 16	8	9	6	4	0
Epilobium anagallidifolium	Onag	N		n	-0.76	10		p		hc		h	Stol1		1	6			236	0	0	0.9	11.6	1880		11, 15	8	8	6	3	0
Epilobium brunnescens	Onag	AN			1.42	4		p		hc	Ch	h	Node2					NZ	1226	423	2	3.0	13.6	1357		14, 15, 16	7	8	4	3	0
Epilobium ciliatum	Onag	AN			3.88	75		p		hc		h	0					Am	2005	400	9	3.7	15.0	972		3, 4, 17	7	6	6	6	0
Epilobium hirsutum	Onag	N		n	0.12	150		p		hc		h	Rhiz2		8	5			2036	795	12	3.8	15.0	971		11, 14	7	8	7	7	0
Epilobium lanceolatum	Onag	N		n	0.07	60		p		hc		h	0		9	2			371	0	12	4.4	16.0	937		3, 16, 17	7	5	6	5	0
Epilobium montanum	Onag	N		n	-0.39	75		p		hc		h	0		7	3			2630	894	10	3.5	14.5	1091		3, 16, 17	6	6	6	6	0
Epilobium obscurum	Onag	N		n	0.38	75		p		hc		h	0		7	3			2347	758	8	3.5	14.5	1104		11, 14	6	8	5	5	0
Epilobium palustre	Onag	N		n	-0.18	60		p		hc		h	Rhiz1		5	6			2417	812	3	3.4	14.3	1146		11, 14	7	8	5	3	0
Epilobium parviflorum	Onag	N		n	-0.41	75		p		hc		h	0		7	3			2070	824	11	3.8	14.9	996		11	7	9	7	5	0
Epilobium roseum	Onag	N		n	-0.25	75		p		hc		h	0		7	4			937	24	0	3.6	15.5	893		1, 3, 14, 17	6	8	7	7	0
Epilobium tetragonum	Onag	N		n	1.66	75		p		hc		h	0		7	4			1171	0	7	3.9	15.9	834		3, 17	6	7	5	5	0
Epipactis atrorubens	Orch	N		s	0.16	30		p		Gn		h	0		5	4			60	13	0	3.0	13.8	1328		16	7	4	8	1	0
Epipactis helleborine	Orch	N		n	0.08	80		p		Gn		h	0		7	5			1218	161	0	3.6	15.3	946		1, 7	4	5	7	4	0
Epipactis leptochila	Orch	N		s	0.26	60		p		Gn		h	0		7	3			86	0	0	3.6	15.7	808		1	3	4	9	4	0
Epipactis palustris	Orch	N		n	-0.39	45		p		Gn		h	Rhiz2		7	4			447	160	3	3.9	15.3	915		11	8	8	7	3	0
Epipactis phyllanthes	Orch	N		s	0.19	42		p		Gn		h	0		7	3			134	9	0	3.8	16.0	774		1	3	5	7	4	0
Epipactis purpurata	Orch	N		n	-0.08	65		p		Gn		h	0		7	3			235	0	0	3.6	16.3	728		1	2	5	8	4	0
Epipactis youngiana	Orch	NE	EN	r		60		p		Gn		h	0		7	1			10	0	0	2.8	14.3	820		1	3	4	5	3	0
Epipogium aphyllum	Orch	N	CR	x		22		p		Gn		h	Rhiz2		4	5			8	0	0	3.6	16.1	721		1	2	5	7	4	0
Equisetum arvense	Equi	N		n	0.39	90		p		Gn		h	Rhiz2		3	6			2666	921	12	3.5	14.5	1087		3, 4	7	6	6	6	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Equisetum fluviatile	Equi	N		n	0.42	100		p		Gn	Hy	h	Rhiz2		5	6			2494	847	8	3.5	14.4	1116		11	8	10	6	4	0
Equisetum hyemale	Equi	N		n	0.30	100		p		Gn		h	Rhiz2		5	6			238	112	0	3.0	14.0	1108		1, 11, 14	5	7	7	6	0
Equisetum palustre	Equi	N		n	0.18	60		p		Gn		h	Rhiz2		5	6			2534	704	8	3.4	14.5	1091		11	7	8	6	3	0
Equisetum pratense	Equi	N		s	0.11	60		p		Gn		h	Rhiz2		4	6			170	35	0	1.8	12.7	1406		11	7	7	5	4	0
Equisetum ramosissimum	Equi	AN				120		p		Gn		h	Rhiz2		8	5		Eur, As	2	0	0	4.1	16.3	740		6	8	4	8	5	0
Equisetum sylvaticum	Equi	N		n	-0.35	90		p		Gn		h	Rhiz2		5	6			1561	334	0	2.9	13.7	1269		1, 16	5	8	5	5	0
Equisetum telmateia	Equi	N		n	0.41	180		p		Gn		h	Rhiz2		8	3			1248	426	3	3.8	15.2	950		11	6	8	7	6	0
Equisetum variegatum	Equi	N		s	-0.12	60		p		Gn		h	Rhiz2		2	6			170	129	0	3.4	14.0	1224		11	8	8	8	3	0
Eranthis hyemalis	Ranu	AN			1.59	15		p		Gn		h	0					Eur	614	0	0	3.4	15.6	716		1, 3, 17	3	5	7	6	0
Erica ciliaris	Eric	N		r	-0.11	60		p		Ch	Pn	w	0		8	1			19	0	0	5.7	15.9	1011		10, 12	8	7	1	1	0
Erica cinerea	Eric	N		n	-0.94	60		p		Ch	Pn	w	0		7	1			1999	712	13	3.5	14.0	1226		10	7	5	2	2	0
Erica erigena	Eric	N		o		120		p		Pn		w	0		8	1			0	24	0	4.3	14.0	1395		10, 13, 14	8	8	2	2	0
Erica mackaiana	Eric	N		o		60		p		Ch	Pn	w	0		7	0			0	10	0	4.0	13.7	1593		10, 12	8	8	2	1	0
Erica tetralix	Eric	N		n	-0.91	60		p		Ch	Pn	w	Node1		7	2			1962	781	2	3.4	14.0	1230		10, 12	8	8	2	1	0
Erica vagans	Eric	N		r	-0.07	80		p		Pn		w	0		8	1			6	1	0	6.0	15.5	1047		10	8	6	4	1	0
Erigeron acer	Aste	N		n	0.33	50		a	b	Th	hc	h	0		5	6			974	80	5	3.8	15.9	774		3, 16	8	5	7	3	0
Erigeron borealis	Aste	N	VU	r	-0.11	20		p		Ch		h	0		1	4			10	0	0	-1.2	10.6	1653		15, 16	9	5	7	2	0
Erigeron karvinskianus	Aste	AN			2.37	25		p		Ch		h	0					SAm	292	34	11	4.6	15.9	904		3, 16, 17	8	3	7	2	0
Erinus alpinus	Orob	AN			1.52	20		p		Ch		h	0					Eur	341	55	1	3.3	14.5	1121		3, 16	8	3	8	2	0
Eriocaulon aquaticum	Erio	N		r	0.18		20	p		Hy		h	Rhiz1	DRa	4	0			8	70	0	4.4	14.1	1435		13	8	11	4	1	0
Eriophorum angustifolium	Cype	N		n	-0.79	60		p		hc		h	Rhiz2		3	6			2134	831	4	3.4	14.1	1194		12	8	9	4	1	0
Eriophorum gracile	Cype	N	VU	r	-0.20	60		p		hc		h	Rhiz2		5	6	c		17	14	0	4.5	15.4	1006		11	8	9	4	2	0
Eriophorum latifolium	Cype	N		n	0.36	60		p		hc		h	Rhiz2		5	3			575	100	0	2.7	13.6	1394		11	9	9	7	2	0
Eriophorum vaginatum	Cype	N		n	-0.36	50		p		hc		h	0gr		2	6			1516	560	0	3.1	13.6	1307		12	8	8	2	1	0
Erodium cicutarium	Gera	N		n		40		a		Th		h	0		8	4			1666	167	14	3.8	15.2	902		19	8	4	6	4	0
Erodium cicutarium agg.	Gera	N		n	-0.11	40		a		Th		h	0		8	4			1666	167	14	3.8	15.2	902		19	8	4	6	4	0
Erodium lebelii	Gera	N		s		15		a		Th		h	0		8	2			74	13	3	5.0	15.5	959	Co	19	8	4	7	2	0
Erodium maritimum	Gera	N		n	0.38	20		a		Th		h	0		8	2			195	33	13	5.3	15.6	996	Co	18, 19	9	4	6	6	3
Erodium moschatum	Gera	AR			0.47	40		a		Th		h	0		9	1			338	80	14	4.6	15.8	880		3, 4	7	4	6	5	0
Erophila glabrescens	Bras	N		n		9		a		Th		h	0		?	?			359	40	3	3.5	14.9	997		3, 16, 17	8	3	7	3	0
Erophila majuscula	Bras	N		s		9		a		Th		h	0		?	?			123	11	0	3.7	15.5	844		3, 16, 17	8	3	7	3	0
Erophila verna	Bras	N		n		10		a		Th		h	0						1074	177	6	3.6	15.2	918		3, 16, 17	8	3	6	3	0
Erophila verna sens.lat.	Bras	N		n	0.52	10		a		Th		h	0		8	4			2180	423	11	3.4	14.7	1011		3, 16, 17	8	3	7	3	0
Erucastrum gallicum	Bras	AN			-0.02	60		a		Th		h	0					Eur	141	25	0	3.9	15.9	809		3, 16	8	4	7	7	0
Eryngium campestre	Apia	AR	VU		-0.41	75		p		hc		h	0		8	3			46	1	2	4.6	16.1	856		3, 5	9	3	8	3	0
Eryngium maritimum	Apia	N		n	-0.80	60		p		hc		h	0		8	3			291	106	11	4.7	15.2	1010	Co	19	9	4	6	5	3
Erysimum cheiranthoides	Bras	AR			-0.65	90		a		Th		h	0					Unk	929	80	2	3.7	15.7	804		3, 4	7	5	7	7	0
Erysimum cheiri	Bras	AR			1.05	60		p		Ch	Pn	sw	0					Gard	907	97	8	4.0	15.6	848		3, 16, 17	8	4	8	5	1
Euonymus europaeus	Cela	N		n	0.15	600		p		Ph		w	Root		7	3			1254	483	0	3.9	15.4	904		1, 3	5	5	8	5	0
Eupatorium cannabinum	Aste	N		n	-0.15	150		p		hc		h	Rhiz1		7	3			1715	410	11	3.9	15.2	974		11	7	8	6	7	0
Euphorbia amygdaloides	Euph	N		n	-0.22	70		p		Ch		h	0		7	3			704	0	9	4.1	16.1	827		1	4	5	6	6	0
Euphorbia cyparissias	Euph	AN			0.98	40		p		hc		h	Root		7	3	c	Eur	369	2	2	3.6	15.6	838		3, 4, 7, 19	8	3	7	3	0
Euphorbia esula x waldsteinii (E. x pseudovirgata)	Euph	AN				80		p		hc		h	Root					Eur	169	0	1	3.7	16.1	715		3	8	4	8	5	0
Euphorbia exigua	Euph	AR			-1.18	20		a		Th		h	0		8	3			1039	125	3	3.9	15.8	783		4	6	4	7	5	0
Euphorbia helioscopia	Euph	AR			-0.77	40		a		Th		h	0		8	5			2114	642	12	3.8	14.9	973		4, 17	7	5	6	6	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Euphorbia hyberna	Euph	N	VU	r		52		p		hc		h	0		8	2			2	137	0	5.2	14.9	1203		1, 3	5	5	5	4	0
Euphorbia lathyris	Euph	AR			2.16	120		b		Ch		h	0		8	3			956	21	13	3.8	15.8	804		3, 16, 17	6	5	7	5	0
Euphorbia paralias	Euph	N		n	-0.35	52		p		Ch		h	0		9	1			182	65	8	5.1	15.6	987	Co	19	9	4	7	5	3
Euphorbia peplis	Euph	N	EW	x	-1.49	5		a		Th		h	0		9	1			26	1	8	5.8	16.1	969	Co	19	9	4	7	5	3
Euphorbia peplus	Euph	AR			-0.17	30		a		Th		h	0		8	3			1911	525	14	3.8	15.1	950		4, 17	7	4	7	6	0
Euphorbia platyphyllos	Euph	AR			-0.24	70		a		Th		h	0		8	3			248	0	0	3.9	16.3	733		4	7	5	7	5	0
Euphorbia portlandica	Euph	N		n	-0.09	35		p		Ch		h	0		8	1			148	82	14	5.3	15.4	1060	Co	18, 19	8	3	7	3	3
Euphorbia serrulata	Euph	NA	VU	r	1.20	65		a		Th		h	0		8	3			13	0	0	4.1	16.3	812		1, 3	5	6	8	5	0
Euphrasia anglica	Scro	NE		n		20		a		Th		h	0		7	1			375	52	0	4.1	15.3	1081		10, 16	7	5	5	3	0
Euphrasia arctica	Scro	N		n		30		a		Th		h	0		5	1			1095	478	0	3.2	13.6	1315		6, 11	7	5	6	4	0
Euphrasia cambrica	Scro	NE	VU	r		8		a		Th		h	0		1	1			5	0	0	2.8	13.2	2458		15	8	5	5	2	0
Euphrasia campbelliae	Scro	NE		r		10		a		Th		h	0		4	1			11	0	0	4.0	12.5	1638		10, 11	8	6	4	2	0
Euphrasia confusa	Scro	N		n		20		a		Th		h	0		5	1			970	37	3	3.2	13.8	1267		7, 8, 16	8	5	6	2	0
Euphrasia foulaensis	Scro	N		s		6		a		Th		h	0		4	1			143	0	0	3.6	12.4	1263	Co	18, 21	8	6	6	4	1
Euphrasia frigida	Scro	N		s		20		a		Th		h	0		1	4			118	6	0	1.5	11.8	1981		15, 16	8	6	4	2	0
Euphrasia heslop-harrisonii	Scro	NE		r		15		a		Th		h	0		4	1			20	0	0	3.7	12.6	1695	Co	21	8	7	6	4	3
Euphrasia marshallii	Scro	NE		r		12		a		Th		h	0		4	1			39	0	0	3.8	12.3	1334	Co	18	8	5	6	3	1
Euphrasia micrantha	Scro	N		n		25		a		Th		h	0		7	3			941	190	0	3.0	13.2	1400		8, 10	7	5	2	2	0
Euphrasia nemorosa	Scro	N		n		35		a		Th		h	0		7	3			1498	202	7	3.6	14.8	1037		7, 10	7	5	6	4	0
Euphrasia officinalis agg.	Scro	N		n	-1.61	30		a		Th		h	0		6	3			2600	874	12	3.5	14.4	1131		6, 7, 8, 10	8	5	5	3	0
Euphrasia ostenfeldii	Scro	N		r		12		a		Th		h	0		2	1			85	0	1	2.8	12.2	1694		16	9	4	5	2	0
Euphrasia pseudokerneri	Scro	NE		s		20		a		Th		h	0		7	1			167	3	0	3.7	16.1	753		7	7	4	8	3	0
Euphrasia rivularis	Scro	NE		r		15		a		Th		h	0		4	1			14	0	0	2.3	13.2	2450		15, 16	7	7	7	3	0
Euphrasia rostkoviana	Scro	N		n		35		a		Th		h	0		5	3			291	122	1	3.7	14.3	1336		6	7	5	5	3	0
Euphrasia rotundifolia	Scro	NE	EN	r		10		a		Th		h	0		4	1			4	0	0	3.5	12.4	1004	Co	18	8	4	7	2	1
Euphrasia salisburgensis	Scro	N		o		12		a		Th		h	0		2	3			0	39	0	4.6	14.7	1134		16	7	5	8	4	0
Euphrasia scottica	Scro	N		n		25		a		Th		h	0		4	3			601	75	0	2.5	12.8	1575		10, 15	8	5	5	2	0
Euphrasia tetraquetra	Scro	N		n		15		a		Th		h	0		7	1			313	108	10	4.7	14.9	1105		6, 10	8	6	6	3	3
Euphrasia vigursii	Scro	NE	VU	r		20		a		Th		h	0		7	1			33	0	0	5.4	15.3	1263		10	7	5	4	3	0
Exaculum pusillum	Gent	N		o		8		a		Th		h	0		8	2			0	0	1	6.8	16.7	712		19	9	8	3	2	1
Fagopyrum esculentum	Poly	AN			-0.53	60		a		Th		h	0					As1?	501	6	8	3.8	15.8	788		4	8	6	7	7	0
Fagus sylvatica	Faga	N		n	-0.62	3000		p		Ph		w	0		7	3			2397	799	12	3.5	14.7	1061		1	3	5	5	5	0
Fallopia convolvulus	Poly	AR			-1.31	100		a		Th		h	0		6	4			2139	519	13	3.7	14.9	971		3, 4	7	4	7	5	0
Fallopia dumetorum	Poly	N		s	-0.33	200		a		Th		h	0		7	5			69	0	0	3.9	16.4	784		1, 3	6	5	6	7	0
Fallopia japonica	Poly	AN			1.83	200		p		Gn		h	Rhiz2					As2	2060	689	12	3.7	14.8	1043		3, 14, 17	6	7	6	6	0
Fallopia sachalinensis	Poly	AN			1.05	300		p		Gn		h	Rhiz2					As2	507	69	0	3.7	15.3	976		3	6	5	6	7	0
Festuca altissima	Poac	N		n	0.83	120		p		hc		h	0		7	3			241	85	0	2.6	13.6	1410		1, 16	3	5	4	5	0
Festuca arenaria	Poac	N		s		75		p		hc		h	Rhiz2		7	1			108	4	3	4.2	15.4	828		19	8	4	5	3	3
Festuca armoricana	Poac	N		o		40		p		hc		h	0		7	1			0	0	1	6.2	16.9	796		19	8	3	6	3	1
Festuca arundinacea	Poac	N		n	1.71	120		p		hc		h	0		8	4			2082	554	7	3.6	14.9	980		6, 7	8	6	7	6	1
Festuca filiformis	Poac	N		n		35		p		hc		h	0gr		7	2			821	60	4	3.0	14.3	1100		8	8	4	3	2	0
Festuca gigantea	Poac	N		n	0.46	125		p		hc		h	0		7	3			1885	357	0	3.6	15.1	981		1	5	6	7	7	0
Festuca huonii	Poac	N		o		25		p		hc		h	0		7	0			0	0	7	6.4	16.5	780		16, 18	8	5	4	3	1
Festuca lemanii	Poac	NA		r		66		p		hc		h	0		7	1			7	0	1	3.4	15.3	1079		7, 8, 16	8	4	7	2	0
Festuca longifolia	Poac	N	VU	r		40		p		hc		h	0		7	1			15	0	6	4.8	16.2	751		8	8	3	5	2	0
Festuca ovina	Poac	N		n		43		p		hc		h	0gr		5	5			1788	584	4	3.5	14.5	1109		7, 8	7	5	4	2	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Festuca ovina agg.	Poac	N		n	-0.15	45		p		hc		h	0gr		3	6			2718	726	13	3.5	14.4	1118		7, 8	7	5	4	2	0
Festuca pratensis	Poac	N		n	-0.16	80		p		hc		h	0		5	4			1976	569	4	3.6	14.9	985		6	7	6	6	6	0
Festuca pratensis x Lolium perenne (x Festulolium loliaceum)	Poac	NH		n		65		p		hc		h	0						790	80	4	3.5	15.5	851		6	8	6	7	6	1
Festuca rubra	Poac	N		n		72		p		hc		h	Rhiz2		3	6			2799	974	12	3.5	14.5	1104		3, 5, 6, 21	8	5	6	5	2
Festuca rubra agg.	Poac	N		n	2.96	72		p		hc		h	Rhiz2		3	6			2799	974	12	3.5	14.5	1104		6	8	5	6	5	2
Festuca vivipara	Poac	N		n	0.13	44		p		hc		h	0gr	DRi	2	6			801	182	0	2.7	12.7	1592		15, 16	8	6	3	2	0
Filago gallica	Aste	AR	CR		0.01	20		a		Th		h	0					Eur	21	0	2	3.8	16.4	647		3, 4	9	2	5	2	0
Filago lutescens	Aste	NA	VU	s	-0.34	25		a		Th		h	0		7	3			85	0	0	3.7	16.4	660		3, 4	9	3	4	2	0
Filago minima	Aste	N		n	-0.91	20		a		Th		h	0		7	3			788	105	12	3.6	15.1	904		16	8	3	4	2	0
Filago pyramidata	Aste	AR	EN		-1.14	30		a		Th		h	0		9	2			132	0	2	3.8	16.3	687		4	9	4	7	3	0
Filago vulgaris	Aste	N		n	-1.20	35		a		Th		h	0		8	3			980	78	8	3.8	15.5	832		3	7	4	6	4	0
Filipendula ulmaria	Rosa	N		n	-0.10	120		p		hc		h	Rhiz2		5	5			2692	967	3	3.5	14.5	1105		11	7	8	6	5	0
Filipendula vulgaris	Rosa	N		n	-0.07	50		p		hc	Gn	h	Rhiz1	DRg	7	4			578	8	3	3.6	15.8	776		7	7	4	8	2	0
Foeniculum vulgare	Apia	AR			1.17	250		p		hc		h	0		0	3		Eur	961	60	13	4.1	15.9	823		3, 16, 17	9	5	8	5	3
Fragaria vesca	Rosa	N		n	-1.09	30		p		hc		h	Stol2		7	4			2380	819	6	3.5	14.6	1091		1, 7	6	5	6	4	0
Fragaria x ananassa	Rosa	AN			0.42	40		p		hc		h	Stol2					Gard	740	20	5	3.7	15.5	863		3, 17	6	5	8	7	0
Frangula alnus	Rham	N		n	-0.16	500		p		Ph		w	0		7	4			712	56	0	3.8	15.8	881		1	6	8	5	5	0
Frankenia laevis	Fran	N		s	0.03	8		p		Ch		h	0		8	2			58	0	5	4.4	16.5	680	Co	19, 21	9	8	8	5	5
Fraxinus excelsior	Olea	N		n	-0.73	2500		p		Ph		w	0		7	3			2459	930	10	3.6	14.7	1069		1	5	6	7	6	0
Fritillaria meleagris	Lili	NA		s	0.86	30		p		Gb		h	0		7	3			98	0	0	3.6	16.3	688		6	8	8	7	4	0
Fuchsia magellanica	Onag	AN			1.85	150		p		Pn		w	0					SAm	367	542	7	4.3	14.3	1223		3, 17	6	6	5	5	0
Fumaria bastardii	Fuma	N		n	0.39	75		a		Th		h	0		9	1			423	330	10	4.5	14.8	1086		4	8	4	6	6	0
Fumaria capreolata	Fuma	N		n	0.31	100		a		Th		h	0		9	2			482	180	11	4.2	14.9	997		3, 16	7	4	6	7	0
Fumaria densiflora	Fuma	AR			-0.37	52		a		Th		h	0		8	3			307	16	0	3.6	15.5	763		4	8	3	8	5	0
Fumaria muralis	Fuma	N		n	1.75	100		a		Th		h	0		8	1			1200	368	13	4.0	14.9	1004		4	7	5	6	6	0
Fumaria occidentalis	Fuma	NE		s	0.04	100		a		Th		h	0		7	1			31	0	0	6.5	15.8	1073		3, 4	7	4	6	5	0
Fumaria officinalis	Fuma	AR			-0.34	52		a		Th		h	0		8	3			1978	304	12	3.6	15.0	912		3, 4	6	5	7	6	0
Fumaria parviflora	Fuma	AR			-0.55	47		a		Th		h	0		8	3			128	0	0	3.6	16.1	703		4	8	4	8	5	0
Fumaria purpurea	Fuma	N		s	0.25	60		a		Th		h	0		7	1			191	37	2	4.1	14.8	978		3, 4	7	4	6	5	0
Fumaria reuteri	Fuma	AN			-0.62	100		a		Th		h	0		8	1		Eur	13	0	1	5.4	16.1	958		3, 4, 17	8	4	6	5	0
Fumaria vaillantii	Fuma	AR			-0.51	42		a		Th		h	0		7	4			116	0	0	3.5	16.2	702		4	8	3	8	5	0
Gagea bohemica	Lili	N	VU	r		9		p		Gb		h	0tb	DRa	8	3	c		1	0	0	2.9	14.7	1008		16	9	2	5	2	0
Gagea lutea	Lili	N		n	0.16	25		p		Gb		h	0tb	DRg	7	3	c		212	0	0	3.0	15.1	861		1, 3, 14, 16	4	6	7	7	0
Galanthus nivalis	Lili	AN			3.01	22		p		Gb		h	0tb	DRg	8	3		Eur	1763	36	5	3.5	15.2	919		1, 3, 17	5	6	7	7	0
Galega officinalis	Faba	AN				150		p		hc		h	0		7	3	c	Eur	352	0	1	3.7	16.2	725		3, 17	8	5	7	8	0
Galeopsis angustifolia	Lami	AR			-3.31	50		a		Th		h	0		7	3			616	43	0	3.8	15.8	791		4, 16	8	2	8	4	0
Galeopsis bifida	Lami	N		n		100		a		Th		h	0		5	5			1135	138	1	3.6	14.9	1011		4	7	5	6	6	0
Galeopsis segetum	Lami	AR	EX			50		a		Th		h	0		7	2			32	0	0	3.7	15.6	789		4	7	4	3	3	0
Galeopsis speciosa	Lami	AR			-1.82	100		a		Th		h	0		5	4			999	84	0	3.1	14.5	1043		4	7	5	7	7	0
Galeopsis tetrahit	Lami	N		n		100		a		Th		h	0		5	3			1725	409	1	3.6	14.8	1025		3	7	5	6	6	0
Galeopsis tetrahit agg.	Lami	N		n	-0.61	100		a		Th		h	0		5	5			2508	623	4	3.5	14.5	1073		3	7	5	6	6	0
Galinsoga parviflora	Aste	AN			0.63	80		a		Th		h	0					SAm	429	2	9	3.8	16.1	721		4, 17	7	4	6	7	0
Galinsoga quadriradiata	Aste	AN			1.07	80		a		Th		h	0					SAm	524	5	6	3.8	16.0	778		3, 4, 17	7	5	6	6	0
Galium aparine	Rubi	N		n	-0.09	150		a		Th		h	0		7	3			2672	960	14	3.6	14.6	1080		3, 4, 17	6	6	7	8	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Galium boreale	Rubi	N		n	-0.52	45		p		hc		h	Rhiz2		5	6			561	101	0	2.2	12.8	1580		7, 16	7	5	7	3	0
Galium constrictum	Rubi	N		r		40		p		hc		h	Rhiz1		9	1			12	0	5	5.0	16.5	799		13	8	9	3	2	0
Galium mollugo	Rubi	N		n	0.04	112		p		hc		h	Rhiz2		5	3			1665	0	14	3.5	15.3	905		7	7	4	7	4	0
Galium odoratum	Rubi	N		n	-0.62	45		p		hc		h	Rhiz2		7	3			1836	350	1	3.4	14.7	1086		1	3	5	7	6	0
Galium palustre	Rubi	N		n	0.07	75		p		hc		h	Rhiz1		5	4			2652	932	9	3.5	14.5	1105		11	7	9	5	4	0
Galium parisiense	Rubi	NA		s	-0.57	30		a		Th		h	0		9	2			63	0	0	3.7	16.3	693		3	8	3	7	2	0
Galium pumilum	Rubi	N		r	-1.32	35		p		hc		h	Node1		7	3			65	0	0	3.7	16.2	754		7	7	4	8	3	0
Galium saxatile	Rubi	N		n	-0.15	30		p		hc		h	Node2		7	2			2489	793	9	3.5	14.3	1148		8, 9	6	6	3	3	0
Galium spurium	Rubi	AN			-1.87	100		a		Th		h	0		7	6	c	NHem	55	0	0	3.9	16.1	755		4	7	5	8	5	0
Galium sterneri	Rubi	N		n	0.69	30		p		hc		h	Node1		4	2			273	35	0	2.0	13.0	1457		7, 16	9	4	7	1	0
Galium tricornutum	Rubi	AR	CR		-4.78	50		a		Th		h	0		8	4			386	1	0	3.8	16.1	736		4	7	4	7	4	0
Galium uliginosum	Rubi	N		n	-0.14	60		p		hc		h	Rhiz1		5	5			1435	102	0	3.2	14.9	961		11	7	9	6	4	0
Galium verum	Rubi	N		n	-0.85	75		p		hc		h	Rhiz2		5	5			2516	730	14	3.5	14.6	1045		7	7	4	6	2	0
Gastridium ventricosum	Poac	NA		s	-0.48	50		a		Th		h	0		9	1			159	0	2	4.6	16.3	839		4, 7	9	3	8	2	0
Gaudinia fragilis	Poac	NA		s		45		a		Th		h	0		9	2			47	0	2	4.5	16.2	865		3, 6	8	5	6	6	0
Gaultheria shallon	Eric	AN				150		p		Pn		w	Rhiz2					Am4	179	14	1	3.6	14.9	1077		1, 10	3	4	4	3	0
Genista anglica	Faba	N		n	-1.09	50		p		Ch	Pn	w	0		7	1			858	0	0	3.0	14.6	1019		10	8	5	3	2	0
Genista pilosa	Faba	N		r	-0.26	40		p		Ch	Pn	w	0		7	3			23	0	0	5.0	15.6	1011		10	8	5	4	1	0
Genista tinctoria	Faba	N		n	-0.77	60		p		Ch	Pn	w	0		7	3			932	0	1	3.6	15.6	880		6	8	6	7	2	0
Gentiana nivalis	Gent	N	VU	r		15		a		Th		h	0		1	3			4	0	0	-0.5	11.2	1853		15, 16	9	5	7	3	0
Gentiana pneumonanthe	Gent	N		s	-0.31	40		p		hc		h	0		7	4			130	0	0	3.7	15.7	806		8, 10	8	7	4	1	0
Gentiana verna	Gent	N		r	0.21	7		p		Ch		h	0		1	3			5	22	0	4.0	14.4	1153		7, 16	8	4	8	1	0
Gentianella amarella	Gent	N		n	-0.75	30		b		hc		h	0		5	6			884	132	0	3.5	14.9	932		7	8	4	8	2	0
Gentianella anglica	Gent	NE		s	-0.32	20		b		hc		h	0		7	1			113	0	0	4.1	16.1	812		7	8	3	8	2	0
Gentianella campestris	Gent	N		n	-1.28	30		b		hc		h	0		5	3			915	153	0	3.1	13.5	1298		7	8	6	6	3	1
Gentianella ciliata	Gent	NA	CR	r		30		b		hc		h	0		7	4	c		2	0	0	3.3	16.1	782		7	8	3	8	2	0
Gentianella germanica	Gent	N		s	-0.17	37		b		hc		h	0		7	3	c		30	0	0	3.3	16.2	725		7	7	4	8	3	0
Gentianella uliginosa	Gent	N	VU	r		15		b		hc		h	0		7	3			9	0	0	5.2	15.1	1221	Co	19	8	8	7	2	0
Geranium columbinum	Gera	N		n	-0.34	60		a		Th		h	0		7	3			887	49	5	4.0	15.6	921		3, 7	7	4	7	7	0
Geranium dissectum	Gera	AR			-0.09	60		a		Th		h	0		8	3			2245	822	14	3.7	14.8	1011		3, 4	7	5	7	6	0
Geranium endressii	Gera	AN			2.07	70		p		hc		h	Rhiz2					Eur	517	24	1	3.5	15.0	991		3, 17	6	5	7	6	0
Geranium lucidum	Gera	N		n	1.42	40		a		Th		h	0		9	2			1460	323	4	3.6	15.1	991		3, 16	6	4	7	6	0
Geranium molle	Gera	N		n	-0.46	40		a		Th		h	0		8	3			2385	640	14	3.7	14.8	1026		3, 4	7	5	6	5	0
Geranium phaeum	Gera	AN			-0.67	80		p		hc		h	0	Rhiz1				Eur	578	53	0	3.5	15.2	931		1, 3, 17	6	5	6	5	0
Geranium pratense	Gera	N		n	0.15	100		p		hc		h	0		5	5			1383	2	0	3.0	14.9	922		6	7	6	7	7	0
Geranium purpureum	Gera	N		s	0.22	50		a		Th		h	0		9	1			52	4	11	5.7	16.1	962		3, 16	7	3	6	3	1
Geranium pusillum	Gera	N		n	0.16	40		a		Th		h	0		7	4			1237	22	10	3.7	15.6	784		3	7	4	7	7	0
Geranium pyrenaicum	Gera	AN			1.14	60		p		hc		h	0		7	3		Eur	1266	153	7	3.8	15.6	823		3, 17	8	4	7	6	0
Geranium robertianum	Gera	N		n	-0.41	50		b	a	hc	Th	h	0		7	3			2552	939	13	3.5	14.6	1092		1, 16	5	6	6	6	0
Geranium rotundifolium	Gera	N		n	1.70	40		a		Th		h	0		8	4			446	25	9	4.2	16.2	810		3, 16, 17	7	4	7	6	0
Geranium sanguineum	Gera	N		n	0.83	40		p		hc		h	Rhiz2		7	3			303	45	0	3.7	14.6	996		7, 16	7	4	7	3	0
Geranium sylvaticum	Gera	N		n	-0.45	70		p		hc		h	0		4	4			675	4	0	1.8	13.0	1339		6, 16	6	5	6	5	0
Geum rivale	Rosa	N		n	-0.70	50		p		hc		h	0		5	4			1739	302	0	2.9	14.0	1196		1, 16	6	7	6	4	0
Geum urbanum	Rosa	N		n	-0.53	70		p		hc		h	0		7	4			2330	837	10	3.6	14.7	1044		1	4	6	7	7	0
Gladiolus communis	Irid	AN				100		p		Gn		h	Rhiz1	DRg	0	3		Eur	152	0	12	5.2	16.0	944		3, 4	7	4	5	4	0
Gladiolus illyricus	Irid	N		r	-0.10	50		p		Gn		h	Rhiz1		9	1			9	0	0	4.5	16.5	794		8, 9	5	4	5	3	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Glaucium flavum	Papa	N		n	-0.39	90		p		hc		h	0		9	1			296	64	8	4.7	15.5	933	Co	19	9	5	8	6	3
Glaux maritima	Prim	N		n	-0.41	30		p		Gn	hc	h	Rhiz2		5	6			935	267	11	4.2	14.3	1177	Co	21	8	7	7	5	4
Glechoma hederacea	Lami	N		n	-0.56	30		p		hc		h	Node2		5	5			2242	708	11	3.6	14.9	1001		1, 3	6	6	7	7	0
Glyceria declinata	Poac	N		n	1.79	60		p		hc		h	Node2		7	2			1869	342	8	3.5	14.8	1058		13, 14	7	9	6	6	0
Glyceria fluitans	Poac	N		n	0.89	95		p		Hy		h	Node2		7	3			2662	878	11	3.5	14.5	1098		11, 14	7	10	6	6	0
Glyceria fluitans x notata (G. x pedicellata)	Poac	NH		n		95		p		Hy		h	Node2						719	69	4	3.6	15.5	872		11, 14	7	10	7	6	0
Glyceria maxima	Poac	N		n	0.65	200		p		Hy	hc	h	Rhiz2		7	6			1291	162	0	3.6	15.5	823		11	7	10	7	8	0
Glyceria notata	Poac	N		n	0.31	95		p		Hy		h	Node2		7	3			1455	357	5	3.6	15.2	902		11, 14	7	10	6	7	0
Gnaphalium luteoalbum	Aste	NA	CR	r	0.23	45		a		Th		h	0		8	4			7	0	7	5.0	16.4	716		4, 19	9	7	5	3	0
Gnaphalium norvegicum	Aste	N		s	0.58	30		p		hc		h	0		1	3			18	0	0	-0.5	10.6	2123		15, 16	8	5	4	4	0
Gnaphalium supinum	Aste	N		n	-0.68	12		p		Ch		h	0		1	3			180	0	0	0.7	11.5	2077		15	8	7	3	3	0
Gnaphalium sylvaticum	Aste	N		n	-2.65	45		p		hc		h	0		5	4			1014	159	0	3.0	14.2	1112		3, 10	7	6	4	3	0
Gnaphalium uliginosum	Aste	N		n	0.80	24		a		Th		h	0		5	5			2383	699	12	3.6	14.6	1074		11, 13	7	6	6	5	0
Goodyera repens	Orch	N		n	-0.34	22		p		hc		h	Rhiz2		4	6			186	0	0	2.2	13.2	1030		2	5	5	3	2	0
Groenlandia densa	Pota	N		n	-1.23		65	p		Hy		h	Irreg	Rhiz2	7	3			590	42	0	3.7	15.9	750		13, 14	8	12	8	5	1
Gymnadenia conopsea	Orch	N		n	-0.76	40		p		Gn		h	0		5	5			1341	365	0	3.2	14.2	1187		7, 11	7	6	7	3	0
Gymnocarpium dryopteris	Wood	N		n	-0.21	35		p		Gn		h	Rhiz2		5	6			963	10	0	2.2	13.1	1445		1, 16	4	5	4	4	0
Gymnocarpium robertianum	Wood	N		s	-0.37	45		p		Gn		h	Rhiz2		5	6			113	1	0	2.7	14.6	1168		16	7	3	8	4	0
Hammarbya paludosa	Orch	N		n	-0.32	8		p		hc		h	0	DRI	4	6			302	44	0	2.9	13.3	1615		11	9	9	2	1	0
Hedera helix	Aral	N		n	-0.65	3000		p		Ph	Ch	w	Node2		8	3			2549	964	14	3.6	14.6	1086		1, 3	4	5	7	6	0
Helianthemum apenninum	Cist	N		r	0.12	15		p		Ch		sw	0		9	3			4	0	0	5.3	16.5	873		7	8	1	8	1	0
Helianthemum nummularium	Cist	N		n	-0.70	15		p		Ch		sw	0		7	3			1002	1	0	3.0	14.8	924		7	7	4	7	2	0
Helianthemum oelandicum	Cist	N		s	0.03	12		p		Ch		sw	0		9	3			20	10	0	4.3	14.8	1108		7, 16	8	3	8	1	0
Helianthus annuus	Aste	AN				200		a		Th		h	0					Am	396	14	4	3.9	15.9	784		3, 17	7	6	5	7	0
Helianthus tuberosus	Aste	AN				170		p		Gn		h	Rhiz1					Am	156	1	2	3.8	16.1	719		17	7	7	8	8	0
Helictotrichon pratense	Poac	N		n	0.31	80		p		hc		h	0		7	3			1001	0	1	2.9	14.6	986		7	7	4	7	2	0
Helictotrichon pubescens	Poac	N		n	0.35	100		p		hc		h	0		7	3			1686	406	2	3.5	14.6	1038		6, 7	7	4	7	3	0
Helleborus foetidus	Ranu	N		s	0.86	80		p		Ch		h	0		8	2			125	0	0	3.7	16.0	806		1, 3	5	4	8	3	0
Helleborus viridis	Ranu	NA		n	-0.28	40		p		hc		h	0		7	2			303	0	0	3.5	15.8	805		1, 3	3	5	8	6	0
Heracleum mantegazzianum	Apia	AN			2.09	350		b		hc		h	0					Eur	1079	163	2	3.6	15.2	876		3, 14, 17	7	6	6	8	0
Heracleum sphondylium	Apia	N		n	0.08	175		b		hc		h	0		5	5			2692	959	14	3.6	14.5	1088		3, 6	7	5	7	7	0
Herminium monorchis	Orch	N		s	-0.93	15		p		Gn		h	Rhiz2		7	5	c		104	0	0	3.6	16.2	770		7	8	5	8	2	0
Herniaria ciliolata	Cary	N		r		7		p		Ch		h	0		8	0			5	0	7	6.5	16.2	887	Co	18	9	4	5	1	2
Herniaria glabra	Cary	N		r	0.83	5		b	a	hc	Th	h	0		7	4			16	0	0	3.2	16.1	624		8	8	5	6	2	0
Hesperis matronalis	Bras	AN			1.53	100		p		hc		h	0					Eur	1709	515	4	3.6	14.8	969		3, 17	7	7	7	7	0
Hierochloe odorata	Poac	N		r	0.39	55		p		hc		h	Rhiz2		4	6	c		18	1	0	3.4	13.5	1092		11, 13	6	9	7	2	0
Himantoglossum hircinum	Orch	N	VU	s	-2.40	70		p		Gn		h	0		9	2			113	0	2	3.8	16.3	728		3, 7, 16	7	3	9	2	0
Hippocrepis comosa	Faba	N		n	-0.54	25		p		Ch		h	0		7	3			348	0	2	3.7	16.0	814		7	8	3	8	2	0
Hippophae rhamnoides	Elae	N		s	1.27	300		p		Pn	Ph	w	Root		5	3			65	0	0	3.9	16.0	624	Co	19	8	5	7	5	3
Hippuris vulgaris	Hipp	N		n	-0.05	30	100	p		Hy		h	Rhiz2	Node2	5	6			1142	407	5	3.5	14.7	962		11, 13	7	10	6	4	1
Hirschfeldia incana	Bras	AN				130		a		Th		h	0					Eur	373	21	9	4.1	16.0	870		3, 17	8	3	7	5	0
Holcus lanatus	Poac	N		n	1.34	100		p		hc		h	0		8	3			2797	977	14	3.5	14.4	1106		3, 6	7	6	6	5	0
Holcus mollis	Poac	N		n	0.80	100		p		hc		h	Rhiz2		7	3			2537	575	11	3.4	14.5	1101		1, 3, 9	6	6	3	3	0
Homogyne alpina	Aste	NA	EN	r		30		p		hc		h	Rhiz2		2	3			1	0	0	-1.0	10.7	1417		15, 16	6	6	4	2	0
Honckenya peploides	Cary	N		n	-0.58	25		p		hc		h	0		3	6			726	211	12	4.3	14.4	1130	Co	19	9	5	7	6	3

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Hordelymus europaeus	Poac	N		s	0.12	120		p		hc		h	0		7	3			185	1	0	3.2	15.5	788		1	6	4	7	7	0
Hordeum distichon	Poac	AC				75		a		Th		h	0					Crop	714	76	3	3.8	15.4	898		3, 4	8	4	7	7	0
Hordeum distichon sens.lat.	Poac	AC				87		a		Th		h	0					Crop	714	76	3	3.8	15.4	898		3, 4	8	4	7	7	0
Hordeum jubatum	Poac	AN				60		p		hc		h	0					As2, Am	349	6	1	3.5	15.4	800		3, 5	9	6	7	6	2
Hordeum marinum	Poac	N		s	-0.85	37		a		Th		h	0		9	1			146	0	1	4.3	16.4	720		6	9	6	8	6	4
Hordeum murinum	Poac	AR			-0.04	60		a		Th		h	0		8	4			1497	48	14	3.8	15.6	817		3, 17	8	4	7	6	0
Hordeum secalinum	Poac	N		n	-0.19	70		p		hc		h	0		7	3			926	30	0	3.8	16.0	742		5	8	6	7	6	1
Hordeum vulgare	Poac	AC				100		a		Th		h	0					Crop	196	8	1	3.8	15.6	833		3, 4	9	4	7	7	0
Hornungia petraea	Bras	N		s	0.31	10		a		Th		h	0		7	3			56	0	3	3.5	14.8	1161		16	9	2	8	1	0
Hottonia palustris	Prim	N		n	-0.63		120	p		Hy		h	Irreg		7	3			463	2	0	3.6	16.0	697		13	7	11	7	5	0
Humulus lupulus	Cann	N		n	-0.09	450		p		hc		h	Rhiz2		7	4			1273	0	8	3.8	15.8	833		3	6	7	7	8	0
Huperzia selago	Lyco	N		n	-0.41	10		p		Ch		sw	0		2	6			989	234	0	2.7	13.2	1472		15, 16	7	6	2	2	0
Hyacinthoides hispanica	Lili	AN				60		p		Gb		h	0tb					Eur	847	76	12	3.9	15.5	866		1, 3, 17	5	4	6	6	0
Hyacinthoides non-scripta	Lili	N		n	-0.41	50		p		Gb		h	0tb		7	1			2439	760	13	3.6	14.6	1092		1, 9	5	5	5	6	0
Hydrilla verticillata	Hydr	N		r			100	p		Hy		h	DRa	DRg	8	5	c		2	1	0	3.5	14.2	1555		13	6	12	9	3	0
Hydrocharis morsus-ranae	Hydr	N		n	-0.89		50	p		Hy		h	Stol1		7	4			323	84	2	3.9	15.8	772		13	7	11	7	7	0
Hydrocotyle ranunculoides	Apia	AN				20	40	p		Hy		h	Irreg					Am	43	0	0	4.0	16.6	680		13, 14	7	10	7	7	0
Hydrocotyle vulgaris	Apia	N		n	-0.53	20		p		hc		h	Node2		8	2			2091	842	10	3.7	14.4	1126		11	8	8	6	3	1
Hymenophyllum tunbrigense	Hyme	N		n	-0.54	8		p		hc		h	Rhiz1		7	0			197	112	0	3.8	14.0	1567		16	4	6	2	3	0
Hymenophyllum wilsonii	Hyme	N		n	-0.87	10		p		hc		h	Rhiz1		5	0			577	176	0	3.1	13.1	1685		1, 16	5	5	3	3	0
Hyoscyamus niger	Sola	AR			-1.38	80		b		hc		h	0		8	4			796	87	5	4.0	15.7	799		4	8	4	7	9	0
Hypericum androsaemum	Clus	N		n	0.78	80		p		Pn		w	0		9	2			1139	744	8	4.0	14.8	1184		1, 3	5	6	6	5	0
Hypericum calycinum	Clus	AN			0.74	60		p		Ch	Pn	w	Rhiz2					Eur	702	63	2	4.0	15.6	884		3	5	7	5	5	0
Hypericum canadense	Clus	AN				20		a		Th		h	0					Am	0	3	0	4.6	14.4	1252		11, 14	8	9	2	2	0
Hypericum elodes	Clus	N		n	-0.46	20	40	p		hc	Hy	h	Node2		7	1			583	260	7	4.2	14.8	1194		11	8	10	3	2	0
Hypericum hirsutum	Clus	N		n	-0.18	100		p		hc		h	0		7	4			1276	10	0	3.3	15.3	832		6, 7	6	5	7	5	0
Hypericum humifusum	Clus	N		n	-0.40	10		p		Ch		h	0		7	3			1732	428	12	3.6	14.8	1085		3	7	6	4	3	0
Hypericum linariifolium	Clus	N		r	0.09	40		p		hc	Ch	h	0		8	1			14	0	9	5.5	15.8	1069		16	7	3	3	2	0
Hypericum maculatum	Clus	N		n	2.11	60		p		hc		h	Rhiz2		5	3			1180	300	0	3.6	15.0	1016		1, 3, 16	6	6	5	5	0
Hypericum montanum	Clus	N		n	-0.49	80		p		hc		h	0		7	3			269	0	0	3.8	15.6	867		1, 3	7	4	8	2	0
Hypericum perforatum	Clus	N		n		80		p		hc		h	Rhiz2	Root	8	4			1906	385	6	3.6	15.1	951		7	7	4	7	5	0
Hypericum pulchrum	Clus	N		n	-0.32	60		p		hc		h	0		7	2			2427	887	9	3.5	14.3	1148		10, 16	6	5	4	3	0
Hypericum tetrapterum	Clus	N		n	-0.41	60		p		hc		h	Stol1		7	3			2101	842	11	3.7	14.9	1025		11	7	8	6	4	0
Hypericum undulatum	Clus	N		s	-0.12	60		p		hc		h	Stol1		8	1			81	0	0	5.6	15.5	1152		11	8	8	4	2	0
Hypochaeris glabra	Aste	N		n	-1.01	20		a		Th		h	0		8	3			270	5	14	4.0	15.9	754		8	8	4	4	2	0
Hypochaeris maculata	Aste	N	VU	r	-0.10	60		p		hc		h	0		7	4	c		17	0	1	3.9	16.1	710		7	8	4	8	3	0
Hypochaeris radicata	Aste	N		n	0.61	60		p		hc		h	0		8	3			2725	977	14	3.5	14.5	1104		6	8	4	5	3	0
Iberis amara	Bras	N		s	-1.21	35		a		Th		h	0		8	2			47	0	0	3.5	16.3	710		7	7	4	8	3	0
Ilex aquifolium	Aqui	N		n	-0.16	1500		p		Ph		w	0		8	2			2353	861	14	3.6	14.7	1079		1	5	5	5	5	0
Illecebrum verticillatum	Cary	N		r	-0.60	20		a		Th		h	0	Node1	8	2			37	0	0	5.6	15.7	1062		3, 13	8	7	3	2	0
Impatiens capensis	Bals	AN			0.71	60		a		Th		h	0					Am6	323	1	0	3.7	16.2	723		13, 14	7	9	7	6	0
Impatiens glandulifera	Bals	AN			1.85	200		a		Th		h	0					As1	1599	286	6	3.7	15.1	957		14	6	8	7	7	0
Impatiens noli-tangere	Bals	N		s	-0.77	60		a		Th		h	0		7	5			21	0	0	2.6	13.9	1833		1	4	7	7	6	0
Impatiens parviflora	Bals	AN			0.10	100		a		Th		h	0					As1	470	1	0	3.5	15.7	821		1	4	5	7	8	0
Inula conyzae	Aste	N		n	-0.15	125		p		hc		h	0		7	3			860	0	7	3.9	15.9	821		7, 16	7	3	8	3	0
Inula crithmoides	Aste	N		s	0.09	95		p		hc	Ch	h	0		9	1			121	19	8	5.1	16.1	869	Co	18	9	6	7	5	5

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Inula helenium	Aste	AR			-0.80	150		p		hc		h	0					Eur, As1	631	100	3	4.0	15.1	973		3, 17	6	6	6	5	0
Inula salicina	Aste	N		o		60		p		hc		h	Rhiz2		7	5	c		0	3	0	4.7	14.9	1017		16	8	6	9	3	0
Iris foetidissima	Irid	N		n	1.47	80		p		hc		h	Rhiz1		8	2			728	0	14	4.2	16.1	821		1	5	4	8	5	0
Iris germanica	Irid	AN				95		p		hc		h	Rhiz1					Gard	211	1	3	3.9	16.0	734		3, 17	8	4	6	4	0
Iris pseudacorus	Irid	N		n	0.16	150		p		Gn	Hy	h	Rhiz2		8	3			2563	959	10	3.7	14.6	1081		11	7	9	6	6	1
Isatis tinctoria	Bras	AR			1.08	150		b	p	hc		h	0					Eur, As	102	2	1	3.8	16.0	733		3, 16	8	3	8	3	0
Isoetes echinospora	Isoe	N		n	0.65		15	p		Hy		h	0		4	6			178	32	0	3.2	13.0	1613		13	7	12	5	2	0
Isoetes histrix	Isoe	N		r		4		p		hc		h	0		9	1			3	0	5	6.6	16.2	829		16	8	7	5	1	0
Isoetes lacustris	Isoe	N		n	0.95		25	p		Hy		h	0		4	4			522	147	0	2.8	12.9	1660		13	7	12	4	1	0
Isolepis cernua	Cype	N		n	0.23	15		a	p	Th	hc	h	0		9	1			242	215	10	4.8	14.8	1181		11	8	8	5	3	0
Isolepis setacea	Cype	N		n	0.53	15		a	p	Th	hc	h	0		7	4			2038	638	10	3.5	14.4	1149		11, 14	7	9	5	3	0
Jasione montana	Camp	N		n	-1.08	50		b		hc		h	0		7	3			1076	420	14	4.0	14.8	1152		8, 10	7	4	4	2	0
Juglans regia	Jugl	AN				2400		p		Ph		w	0					Eur?, As1?	803	11	3	3.7	15.9	779		1, 3	6	4	8	7	0
Juncus acutiflorus	Junc	N		n	1.16	100		p		hc		h	Rhiz2		7	3			2498	845	11	3.5	14.5	1115		11	8	8	4	2	0
Juncus acutus	Junc	N		s	0.01	150		p		hc		h	0gr		9	1			41	28	12	5.4	15.7	1031	Co	19	9	8	7	3	3
Juncus alpinoarticulatus	Junc	N		s	-0.12	30		p		hc		h	Rhiz1		4	6			53	0	0	0.7	12.1	1477		11	9	9	7	2	0
Juncus ambiguus	Junc	N		n		17		a		Th		h	0		8	3			175	50	1	4.4	14.9	999	Co	19, 21	9	8	7	5	4
Juncus articulatus	Junc	N		n	1.26	60		p		hc		h	Rhiz2		8	4			2740	956	11	3.5	14.4	1108		11	8	9	6	3	1
Juncus balticus	Junc	N		s	-0.34	45		p		Gn		h	Rhiz2		2	6			92	0	0	3.3	13.1	1012	Co	19	8	8	5	2	1
Juncus biglumis	Junc	N		s	-0.17	12		p		hc		h	0gr		1	6			37	0	0	0.5	11.4	2194		11, 15	9	9	8	2	0
Juncus bufonius	Junc	N		n		25		a		Th		h	0		6	6			1986	724	3	3.6	14.6	1102		3, 11, 13, 14	7	7	6	5	1
Juncus bufonius sens.lat.	Junc	N		n	1.13	25		a		Th		h	0		6	6			2736	937	14	3.5	14.5	1105		3, 1, 13, 14	7	7	6	5	1
Juncus bulbosus	Junc	N		n	0.34	30	90	p		hc	Hy	h	Node2	Irreg	5	3			2250	827	8	3.5	14.2	1180		14	7	10	4	2	0
Juncus capitatus	Junc	N		r		5		a		Th		h	0		8	3			12	0	10	6.3	16.1	889		10	8	6	5	1	0
Juncus castaneus	Junc	N		s	-0.40	30		p		hc		h	Rhiz2		1	6			44	0	0	0.1	11.2	2291		15	8	8	7	3	0
Juncus compressus	Junc	N		n	-1.09	30		p		Gn		h	Rhiz1		7	4			430	4	1	3.6	15.9	746		6, 11	8	8	7	5	1
Juncus conglomeratus	Junc	N		n	0.84	100		p		hc		h	0gr		7	3			2622	798	4	3.5	14.4	1117		11	7	7	4	3	0
Juncus effusus	Junc	N		n	1.06	120		p		hc		h	0gr		8	3			2753	974	13	3.5	14.4	1108		8, 11	7	7	4	4	0
Juncus filiformis	Junc	N		s	0.79	30		p		hc		h	0gr		4	6			32	0	0	2.3	13.6	1530		13	7	9	6	4	0
Juncus foliosus	Junc	N		n		25		a		Th		h	0		8	2			218	88	2	4.3	14.7	1241		11, 13	8	8	6	6	0
Juncus gerardii	Junc	N		n	-0.13	30		p		hc		h	Rhiz2		6	6			919	271	11	4.2	14.4	1174	Co	21	8	7	7	6	3
Juncus inflexus	Junc	N		n	0.04	90		p		hc		h	0gr		8	4			1758	631	9	3.8	15.2	925		6, 11	7	7	7	5	1
Juncus maritimus	Junc	N		n	-0.26	100		p		Gn		h	0gr		8	3			390	196	11	4.7	15.1	1081	Co	21	8	8	8	5	5
Juncus pygmaeus	Junc	N	EN	r		8		a		Th		h	0		9	1			4	0	0	6.7	15.9	965		3	9	7	4	2	0
Juncus squarrosus	Junc	N		n		30		p		hc		h	0gr		7	2			1849	484	0	3.1	13.8	1254		8, 12	7	7	2	2	0
Juncus subnodulosus	Junc	N		n	0.15	120		p		hc		h	Rhiz1		8	3			680	224	2	3.9	15.5	838		11	8	9	8	4	0
Juncus tenuis	Junc	AN			0.83	40		p		hc		h	0gr					Am, SAm	1053	145	3	3.6	14.6	1267		1, 3, 13	7	7	5	4	0
Juncus trifidus	Junc	N		n	-0.38	30		p		hc		h	0gr		1	4			177	0	0	1.0	11.5	2162		15	8	5	2	2	0
Juncus triglumis	Junc	N		n	-0.38	20		p		hc		h	0gr		1	6			200	0	0	0.9	11.8	2085		11, 16	8	9	6	2	0
Juniperus communis	Cupr	N		n	-0.42	500		p		Ph	Ch	w	0		5	6			1020	145	0	2.8	13.4	1380		7, 10, 15, 16	8	5	5	3	0
Kickxia elatine	Scro	AR			-0.18	25		a		Th		h	0		8	3			911	41	11	4.1	16.0	813		4	7	4	6	5	0
Kickxia spuria	Scro	AR			-0.07	25		a		Th		h	0		8	3			622	0	2	3.9	16.2	737		4	7	4	7	5	0
Knautia arvensis	Dips	N		n	-0.88	100		p		hc		h	0		7	4			1707	478	4	3.8	15.2	919		6, 7	7	3	8	4	0
Kobresia simpliciuscula	Cype	N		r	0.58	20		p		hc		h	0		1	6			18	0	0	-0.1	11.5	2044		11, 15	8	8	8	1	0
Koeleria macrantha	Poac	N		n	-0.29	50		p		hc		h	0		7	6			1250	266	7	3.7	14.7	989		7	8	4	7	2	0
Koeleria vallesiana	Poac	N		r		40		p		hc		h	0		8	2			4	0	0	4.5	16.4	868		7	8	1	8	1	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Koenigia islandica	Poly	N		r	0.12	6		a		Th		h	0		1	6			6	0	0	3.4	12.5	2175		11, 16	8	9	6	1	0
Laburnum anagyroides	Faba	AN			3.71	700		p		Ph		w	0					Eur	1119	42	1	3.4	15.2	884		3, 17	6	5	7	7	0
Lactuca saligna	Aste	N	EN	r	-1.51	75		a		Th		h	0		8	3			36	0	0	4.0	16.7	601	Co	19	8	4	7	6	3
Lactuca serriola	Aste	AR			2.70	200		b		hc		h	0		8	4			985	3	4	3.7	16.1	741		3, 17	8	5	7	6	0
Lactuca virosa	Aste	N		n	1.16	200		b		hc		h	0		8	2			650	3	0	3.6	16.0	693		3, 16	8	4	7	7	0
Lagarosiphon major	Hydr	AN					300	p		Hy		h	Irreg					SAf	443	8	6	4.0	15.9	839		13	6	12	7	6	0
Lamiastrum galeobdolon	Lami	N		n	1.07	60		p		Ch		h	Stol2		7	3			1097	16	4	3.7	15.8	855		1	4	5	7	6	0
Lamium album	Lami	AR			-0.65	60		p		hc		h	Rhiz2		5	5			1903	178	5	3.6	15.2	911		3, 17	7	5	7	8	0
Lamium amplexicaule	Lami	AR			-0.22	30		a		Th		h	0		8	4			1485	70	11	3.7	15.3	842		3, 4	7	4	7	6	0
Lamium confertum	Lami	AR			-0.40	25		a		Th		h	0		4	3			397	51	0	3.5	13.5	1097		4	7	5	7	7	0
Lamium hybridum	Lami	AR			1.57	30		a		Th		h	0		7	3			1150	234	11	3.9	15.3	877		4	7	5	7	6	0
Lamium maculatum	Lami	AN				35		p		hc		h	Node2		7	3	c	Eur	923	15	1	3.6	15.4	869		3, 17	5	6	7	8	0
Lamium purpureum	Lami	AR			-1.09	30		a		Th		h	0		7	3			2461	738	14	3.6	14.7	1027		3, 4, 17	6	5	7	7	0
Lapsana communis	Aste	NA		n	-0.47	95		a		Th		h	0		7	3			2437	895	13	3.6	14.7	1059		3, 17	6	4	7	7	0
Larix decidua	Pina	AN			2.91	4600		p		Ph		w	0					Eur	1940	252	2	3.3	14.7	1049		1, 2, 17	7	4	6	3	0
Larix decidua x kaempferi (L. x marschlinsii)	Pina	AN				3000		p		Ph		w	0					Gard	780	25	0	3.2	14.6	1134		2, 17	7	6	5	3	0
Larix kaempferi	Pina	AN				3700		p		Ph		w	0					As2	774	33	0	3.3	14.6	1133		2, 17	7	6	5	3	0
Lathraea squamaria	Orob	N		n	-0.36	30		p		Gn		h	0		7	3			634	120	0	3.3	15.0	955		1, 3	3	6	7	6	0
Lathyrus aphaca	Faba	NA		s	-1.38	60		a		Th		h	0		9	2			174	0	3	4.0	16.4	718		4, 7	7	3	8	4	0
Lathyrus japonicus	Faba	N		s	-0.32	20		p		Gn		h	0		2	3			64	12	1	4.7	15.7	886	Co	19	9	5	7	6	3
Lathyrus latifolius	Faba	AN				300		p		hc		h	Rhiz1		8	3		Eur	762	9	11	3.9	16.0	782		3, 18	7	4	8	3	0
Lathyrus linifolius	Faba	N		n	-0.93	40		p		Gn		h	Rhiz2		7	3			1962	538	0	3.3	14.2	1172		8, 16	6	5	4	3	0
Lathyrus nissolia	Faba	N		n	0.54	75		a		Th		h	0		7	3			567	0	1	3.9	16.3	742		3, 6, 7	8	6	7	6	0
Lathyrus palustris	Faba	N		s	0.23	120		p		hc		h	Rhiz2		5	6			57	36	0	3.9	15.4	823		11	7	9	7	4	0
Lathyrus pratensis	Faba	N		n	-0.17	80		p		hc		h	Rhiz2		5	4			2636	943	10	3.6	14.5	1079		6	7	6	6	5	0
Lathyrus sylvestris	Faba	N		n	-0.36	200		p		hc		h	Rhiz1		7	3			450	0	0	4.0	16.0	835		3	7	4	8	2	0
Lathyrus tuberosus	Faba	AN			-0.99	120		p		Gn		h	Rhiz2		7	4	c	Eur, As1	186	1	0	3.8	16.0	776		3	6	5	7	6	0
Laurus nobilis	Laur	AN				600		p		Ph		w	0		0	3		Eur	193	17	8	4.7	16.0	942		3, 17, 18, 19	6	5	7	6	0
Lavatera arborea	Malv	N		n	1.20	300		b		Pn		w	0		9	1			188	72	13	5.4	15.5	1023	Co	18	9	6	7	8	3
Lavatera cretica	Malv	AN			0.15	100		a		Th		h	0		9	1		Eur	31	1	10	5.2	16.1	875		3, 4, 16	9	4	5	5	0
Leersia oryzoides	Poac	N	EN	r	-0.40	90		p		hc		h	Rhiz2		7	3			21	0	0	4.2	16.5	766		13	8	9	8	7	0
Legousia hybrida	Camp	AR			-0.60	30		a		Th		h	0		8	3			552	0	0	3.7	16.1	717		4	7	4	7	4	0
Lemna gibba	Lemn	N		n	0.07		0.5	p		Hy		h	Frag		8	3			636	54	2	3.8	16.0	739		13	7	11	7	8	1
Lemna minor	Lemn	N		n	0.60		0.4	p		Hy		h	Frag		8	6			2168	799	10	3.7	14.9	986		11, 13	7	11	7	6	0
Lemna minuta	Lemn	AN					0.3	p		Hy		h	Frag					Am, SAm	540	5	8	4.1	16.1	787		13, 14	7	11	7	7	0
Lemna trisulca	Lemn	N		n	-0.21		1	p		Hy		h	Frag		7	6			1156	369	8	3.8	15.5	832		11, 13	7	12	7	5	0
Leontodon autumnalis	Aste	N		n	1.33	60		p		hc		h	0		5	3			2771	942	13	3.5	14.4	1103		6	8	6	6	4	1
Leontodon hispidus	Aste	N		n	-0.59	35		p		hc		h	0		7	3			1702	267	3	3.6	15.2	918		7	8	4	7	3	0
Leontodon saxatilis	Aste	N		n	0.21	20		p		hc		h	0		8	2			1586	618	12	4.0	15.3	960		7	8	5	6	3	0
Lepidium campestre	Bras	AR			-0.70	40		a		Th		h	0		7	3			886	26	1	3.8	15.8	801		3, 4, 17	7	4	7	6	0
Lepidium draba	Bras	AN			0.06	60		p		hc		h	Rhiz2					Eur	1158	39	9	3.8	15.7	786		3, 19, 21	8	4	8	6	1
Lepidium heterophyllum	Bras	N		n	-0.51	50		b	p	hc		h	0		8	1			1133	296	11	3.8	14.7	1074		3	7	4	5	4	0
Lepidium latifolium	Bras	N		s	1.23	120		p		hc		h	Rhiz2		8	4			67	0	4	4.1	16.6	629		6	8	5	7	8	3
Lepidium ruderale	Bras	AR			-0.04	40		a		Th		h	0		7	4			545	7	4	3.9	16.0	757		3, 17	9	4	7	7	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Leucanthemum lacustre x maximum (L. x superbum)	Aste	AN				120		p		hc		h	Rhiz1					Gard	813	8	3	3.9	15.5	890		3, 16, 17	7	4	7	5	0
Leucanthemum vulgare	Aste	N		n	-1.14	75		p		hc		h	Rhiz1		5	4			2532	916	13	3.6	14.6	1074		6, 7	8	4	7	4	0
Leucojum aestivum	Lili	N		s	2.42	60		p		Gb		h	0tb		8	3			26	14	0	4.3	15.9	811		1, 6	7	9	7	8	0
Leucojum vernum	Lili	AN			1.23	30		p		Gb		h	0tb		7	3	c	Eur	67	1	0	3.5	15.4	894		1	6	6	7	6	0
Leycesteria formosa	Capr	AN				200		p		Pn		w	0					As1	418	133	6	4.3	15.4	1027		1, 3, 17	6	5	7	6	0
Leymus arenarius	Poac	N		n	0.27	150		p		hc		h	Rhiz2		2	3			430	70	1	4.0	14.3	998	Co	19	9	5	7	6	3
Ligusticum scoticum	Apia	N		n	-0.29	60		p		hc		h	0		2	3			393	28	0	3.8	13.0	1293	Co	18	8	6	7	5	3
Ligustrum ovalifolium	Olea	AN				400		p		Ph		w	0					As2	1265	248	10	3.9	15.4	928		3, 17	7	5	7	8	0
Ligustrum vulgare	Olea	N		n	-0.69	300		p		Pn	Ph	w	0	Node1	7	3			1511	0	10	3.7	15.7	865		1, 3	6	5	7	5	0
Lilium martagon	Lili	AN			0.83	100		p		Gb		h	0		7	4		Eur, As1	302	1	0	3.2	15.2	874		1, 17	3	4	7	6	0
Limonium auriculae-ursifolium	Plum	N		o		30		p		hc		h	0		8	1			0	0	2	6.1	16.7	891		18	9	4	6	3	4
Limonium bellidifolium	Plum	N		r	0.01	30		p		hc		h	0		8	4			14	0	0	3.6	16.0	603	Co	19, 21	9	8	8	5	5
Limonium binervosum	Plum	N		r		50		p		hc		h	0		7	1			21	0	9	4.7	16.4	727	Co	18, 19, 21	9	8	8	5	5
Limonium binervosum agg.	Plum	N		n	0.16	30		p		hc		h	0		7	1			163	40	9	5.1	15.7	963	Co	18, 21	9	4	7	3	4
Limonium britannicum	Plum	NE		s		30		p		hc		h	0		7	1			23	0	0	5.4	15.7	1004	Co	18, 19, 21	9	4	7	5	4
Limonium dodartiforme	Plum	NE	VU	r		40		p		hc		h	0		7	1			8	0	0	5.0	16.1	865	Co	18	9	3	7	3	4
Limonium humile	Plum	N		s	0.05	40		p		hc		h	0		7	1			82	118	0	4.7	15.2	1012	Co	21	9	8	7	5	6
Limonium loganicum	Plum	NE	VU	r		35		p		hc		h	0		7	1			1	0	0	6.7	15.7	1165	Co	18	9	3	4	3	4
Limonium normannicum	Plum	N		o		20		p		hc		h	0		7	1			0	0	4	6.1	16.6	836		18, 19	9	5	6	3	4
Limonium paradoxum	Plum	NE	VU	r		20		p		hc		h	0		7	1			1	0	0	6.0	15.4	844	Co	18	9	4	7	3	4
Limonium parvum	Plum	NE	VU	r		7		p		hc		h	0		7	1			1	0	0	5.9	15.8	939	Co	18	9	3	8	3	4
Limonium procerum	Plum	NE		s		50		p		hc		h	0		7	1			56	11	0	5.4	15.7	1002	Co	18, 19, 21	9	3	8	3	5
Limonium recurvum	Plum	NE		r		36		p		hc		h	0		7	1			8	13	0	4.8	14.7	1163	Co	18	9	3	7	3	5
Limonium transwallianum	Plum	NE	VU	r		39		p		hc		h	0		7	1			1	0	0	5.6	15.9	1205	Co	18	9	3	8	3	4
Limonium vulgare	Plum	N		n	-0.31	40		p		hc		h	0		9	1			231	0	3	4.3	16.0	821	Co	21	9	8	8	6	6
Limosella aquatica	Scro	N		s	1.00	6		a		Th		h	Stol2		5	6			223	13	0	3.5	15.5	858		13	8	8	5	5	0
Limosella australis	Scro	N	VU	r		4		a		Th		h	Stol2		5	0			6	0	0	4.2	14.7	1608	Co	21	7	9	7	4	1
Linaria pelisseriana	Scro	AN				30		a		Th		h	0		9	1		Eur	12	0	5	4.4	15.9	822		3, 16	8	3	5	4	0
Linaria purpurea	Scro	AN			3.66	100		p		hc		h	0					Eur	1430	72	9	3.7	15.5	855		3, 16, 17	8	5	7	6	0
Linaria repens	Scro	AR			0.30	80		p		hc		h	Root		7	2			805	24	5	3.7	15.2	1000		3, 7	8	5	7	5	0
Linaria vulgaris	Scro	N		n	-0.80	80		p		hc		h	Root		5	5			1967	81	11	3.6	15.2	935		3, 6	7	4	8	6	0
Linnaea borealis	Capr	N		s	0.07	10		p		Ch		sw	Node2		4	6			93	0	0	1.6	12.7	1008		2	5	5	2	2	0
Linum bienne	Lina	N		n	0.06	45		b	p	hc		h	0		9	1			352	82	12	4.8	15.8	914		3, 7	8	4	7	5	0
Linum catharticum	Lina	N		n	-0.44	18		b		hc		h	0		7	3			2596	875	8	3.5	14.4	1113		7	8	5	7	2	0
Linum perenne	Lina	N		s	0.43	55		p		hc		h	0		5	6			58	0	0	3.2	15.3	691		7	7	3	8	2	0
Linum usitatissimum	Lina	AN				72		a		Th		h	0					Gard	918	28	6	3.8	15.7	804		3, 4, 17	7	4	7	5	0
Liparis loeselii	Orch	N	EN	r	-0.38	20		p		hc		h	0		7	4	c		26	0	0	3.9	16.1	771		11	8	8	8	3	0
Listera cordata	Orch	N		n	-0.32	10		p		Gn		h	0		4	6			822	96	0	2.4	12.8	1450		2, 10, 12	3	6	2	2	0
Listera ovata	Orch	N		n	-0.54	60		p		Gn		h	0		5	4			1866	512	3	3.6	14.8	1001		1, 11	6	5	7	5	0
Lithospermum arvense	Bora	AR			-1.91	50		a		Th		h	0		8	4			614	10	2	3.7	15.9	755		4	8	4	7	5	0
Lithospermum officinale	Bora	N		n	-0.59	80		p		hc		h	0		7	4			660	69	1	3.9	15.8	820		1, 3, 7	6	5	8	5	0
Lithospermum purpureocaeruleum	Bora	N		r	-0.33	60		p		Ch	Pn	h	Tip		8	3			25	0	0	4.8	16.3	941		1, 3	5	4	7	4	0
Littorella uniflora	Plan	N		n	0.40	10	10	p		Hy		h	Stol2		7	2			1256	426	3	3.3	13.7	1323		11, 13	8	10	5	3	0
Lloydia serotina	Lili	N	VU	r		15		p		Gb		h	Rhiz1		1	6			2	0	0	2.3	12.5	3092		15, 16	7	5	5	1	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Lobelia dortmanna	Camp	N		n	-0.05		4	p		Hy		h	0		4	3			570	178	0	3.0	12.9	1635		13	8	12	5	1	0
Lobelia urens	Camp	N	VU	r	-0.19	70		p		hc		h	0		8	1			12	0	0	4.7	16.1	988		8, 10	8	8	4	2	0
Lobularia maritima	Bras	AN			2.34	30		a	p	Th	hc	h	0		0	3		Eur	738	33	13	4.0	15.7	854		18, 19	9	3	7	4	3
Loiseleuria procumbens	Eric	N		n	-0.58	25		p		Ch		w	Node2		1	6			182	0	0	0.9	11.4	1994		15	9	5	2	2	0
Lolium multiflorum	Poac	AN			-1.06	100		a	b	Th	hc	h	0					Eur	2069	340	10	3.6	14.9	968		5	7	5	7	7	0
Lolium perenne	Poac	N		n	-0.29	50		p		hc		h	0		8	3			2743	964	14	3.6	14.5	1096		3, 6	8	5	6	6	0
Lolium temulentum	Poac	AR			-4.05	90		a		Th		h	0					Eur	341	37	7	4.0	15.6	855		4	7	4	8	7	0
Lonicera periclymenum	Capr	N		n	-0.11	600		p		Ph		w	0	Node2	8	2			2622	943	14	3.6	14.5	1102		1	5	6	5	5	0
Lonicera xylosteum	Capr	AN			0.58	200		p		Pn		w	0		7	4		Eur, As1	242	16	0	3.4	15.2	874		1, 3	5	5	7	6	0
Lotus angustissimus	Faba	N		s	-0.23	30		a		Th		h	0		8	3			55	0	12	5.7	16.2	952		8	8	3	4	3	0
Lotus corniculatus	Faba	N		n	1.09	40		p		hc		h	0		8	5			2801	975	14	3.5	14.5	1104		6, 7	7	4	6	2	1
Lotus glaber	Faba	N		n	-0.55	90		p		hc		h	0		8	3			509	0	4	3.9	16.1	732		3, 6, 7	7	7	7	5	1
Lotus pedunculatus	Faba	N		n	-0.06	60		p		hc		h	0	Rhiz1	7	3			2380	729	13	3.6	14.7	1072		11	7	8	6	4	0
Lotus subbiflorus	Faba	N		s	0.22	30		a		Th		h	0		8	2			86	8	14	5.8	16.0	987		8	7	5	6	5	0
Ludwigia palustris	Onag	N		r	0.19	15		a	p	Th	Hy	h	Node2		8	3			11	0	3	4.6	16.6	812		13	8	9	4	4	0
Lupinus arboreus	Faba	AN			1.84	200		p		Pn		w	0					Am4	341	21	11	4.2	15.7	825		3, 19	9	4	7	3	0
Lupinus polyphyllus	Faba	AN				150		p		hc		h	0					Am4	215	3	1	3.2	15.2	828		3, 14, 17	7	5	5	5	0
Luronium natans	Alis	N		s	0.24		50	p		Hy		h	Stol2		7	2			91	3	0	3.3	14.7	1229		13, 14	8	11	5	3	0
Luzula arcuata	Junc	N		r	-0.43	10		p		hc		h	Rhiz1		1	3			22	0	0	0.0	10.8	2044		15, 16	9	5	2	2	0
Luzula campestris	Junc	N		n	-0.18	15		p		hc		h	Rhiz2		7	3			2725	835	14	3.5	14.5	1100		6	7	4	5	2	0
Luzula forsteri	Junc	N		n	0.25	35		p		hc		h	0		9	2			309	0	5	4.2	16.2	859		1	4	4	5	2	0
Luzula multiflora	Junc	N		n	0.28	50		p		hc		h	0		3	6			2451	834	7	3.5	14.3	1148		8	7	6	3	3	0
Luzula pallidula	Junc	N	VU	r		30		p		hc		h	0		5	5	c		2	0	0	3.4	16.3	553		1, 11	7	7	5	2	0
Luzula pilosa	Junc	N		n	-0.35	32		p		hc		h	0		5	4			2132	266	1	3.2	14.4	1127		1, 2	5	5	5	3	0
Luzula spicata	Junc	N		n	-0.72	25		p		hc		h	Rhiz1		1	3			189	0	0	1.0	11.5	2085		7, 15, 16	8	5	3	2	0
Luzula sylvatica	Junc	N		n	-0.02	80		p		hc		h	Rhiz1		7	3			2058	621	4	3.3	14.1	1208		1, 16	5	5	4	4	0
Lychnis alpina	Cary	N	VU	r		20		p		Ch		h	0		2	3			2	0	0	0.5	12.0	1640		15	8	3	4	2	0
Lychnis flos-cuculi	Cary	N		n	-0.79	75		p		hc		h	0		7	4			2569	765	9	3.5	14.5	1095		11	7	9	6	4	0
Lychnis viscaria	Cary	N	VU	r	0.01	45		p		Ch		h	0		7	4	c		28	0	0	2.2	13.8	926		16	8	3	4	2	0
Lycium	Sola	AN			0.13	250		p		Pn		w	Root					As	1104	68	9	3.8	15.7	784		3, 19	8	5	7	4	0
Lycium barbarum	Sola	AN				250		p		Pn		w	Root					As								3, 19	8	5	7	4	0
Lycium chinense	Sola	AN				250		p		Pn	Ph	w	Root					As								3, 19	8	5	7	4	1
Lycopersicon esculentum	Sola	AN				150		a		Th		h	0					SAm	523	41	9	4.0	15.6	876		17	7	5	7	8	0
Lycopodiella inundata	Lyco	N		s	-0.65	5		p		Ch		h	Node1		5	3			233	18	0	3.5	14.9	1122		10, 12	9	9	2	1	0
Lycopodium annotinum	Lyco	N		s	-0.38	10		p		Ch		sw	Node2		2	6			171	0	0	0.7	11.7	1760		10, 15	6	6	3	3	0
Lycopodium clavatum	Lyco	N		n	-0.52	15		p		Ch		sw	Node2		5	6			948	81	0	2.4	13.3	1368		10	7	5	1	2	0
Lycopus europaeus	Lami	N		n	-0.01	100		p		hc		h	Rhiz1		7	4			1689	347	8	3.8	15.2	995		11	7	8	7	6	0
Lysichiton americanus	Arac	AN				110		p		hc		h	Rhiz1					Am4	174	24	0	3.9	15.1	1073		13, 14	4	9	6	8	0
Lysimachia nemorum	Prim	N		n	-0.46	20		p		Ch	hc	h	Node2		7	2			2217	740	3	3.4	14.4	1150		1	5	7	4	5	0
Lysimachia nummularia	Prim	N		n	-0.02	5		p		hc	Ch	h	Node2		7	3			1266	227	3	3.7	15.5	895		6, 11, 14	5	7	5	5	0
Lysimachia punctata	Prim	AN			4.62	120		p		hc		h	Rhiz1					Eur	1127	48	0	3.5	15.1	999		1, 3, 17	6	6	7	5	0
Lysimachia thyrsiflora	Prim	N		s	0.38	70		p		hc	Hy	h	Rhiz2		4	6			51	0	0	2.7	14.2	1200		11, 13	8	10	4	3	0
Lysimachia vulgaris	Prim	N		n	0.22	105		p		hc		h	Rhiz2		7	5			1227	288	0	3.7	15.2	943		11	7	9	7	5	0
Lythrum hyssopifolium	Lyth	AR	VU		-1.12	15		a		Th		h	0		8	4			112	3	8	3.9	16.0	777		4	8	6	6	4	0
Lythrum portula	Lyth	N		n	0.32	8		a		Th	Hz	h	0	Node1	7	3			1262	321	7	3.8	14.8	1084		11, 13	8	9	5	3	0
Lythrum salicaria	Lyth	N		n	-0.08	120		p		hc		h	0		7	5			1692	827	8	4.0	15.0	1024		11	7	9	7	5	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Mahonia aquifolium	Berb	AN			1.61	150		p		Pn		w	Rhiz2					Am4	991	4	2	3.4	15.6	786		1, 3	5	4	6	5	0
Maianthemum bifolium	Lili	NA	VU	r	0.32	20		p		Gn		h	Rhiz2		5	5	c		4	0	0	2.9	15.0	753		1, 2	3	5	3	3	0
Malus domestica	Rosa	AR				1000		p		Ph		w	0					Gard	1532	327	8	3.7	15.0	975		3	7	5	6	7	0
Malus sylvestris sens.lat.	Rosa	N		n	0.57	1000		p		Ph		w	0		7	3			2023	598	11	3.7	15.0	975		1, 3	7	5	6	6	0
Malus sylvestris sens.str.	Rosa	N		n		1000		p		Ph		w	0		7	3			1335	218	0	3.7	15.1	964		3	7	5	6	6	0
Malva moschata	Malv	N		n	-0.04	80		p		hc		h	0		7	3			1423	0	10	3.7	15.6	871		6	7	3	7	4	0
Malva neglecta	Malv	AR			-0.22	60		a		Th		h	0		7	3			1196	70	14	3.8	15.7	781		3	7	4	8	7	0
Malva pusilla	Malv	AN				50		a		Th		h	0		7	5	c	Eur, As	107	6	1	4.1	16.0	788		3, 17, 19	8	5	5	5	0
Malva sylvestris	Malv	AR			-0.30	150		p		hc		h	0		8	4			1788	354	14	3.8	15.3	899		3, 17	8	4	8	7	0
Marrubium vulgare	Lami	N		s	-2.02	60		p		hc		h	Rhiz1		8	4			46	0	0	4.6	16.1	861		7	9	5	7	8	0
Matricaria discoidea	Aste	AN			-0.49	35		a		Th		h	0					As2?, Am?	2677	945	14	3.6	14.5	1086		3, 4	7	5	7	7	0
Matricaria recutita	Aste	AR			0.92	60		a		Th		h	0		8	3			1588	51	11	3.7	15.5	868		3, 4	7	5	7	7	0
Matteuccia struthiopteris	Wood	AN				60		p		hc		h	0		4	6	c	NHem	74	4	0	3.2	14.7	1108		1	5	8	7	7	0
Matthiola incana	Bras	AN			0.75	80		p		Pn		sw	0		9	1		Eur	107	2	6	5.0	15.9	874	Co	18, 19	9	3	8	2	3
Matthiola sinuata	Bras	NA	VU	r		60		b		hc		h	0		9	1			19	8	6	5.4	15.6	1089	Co	18, 19	9	3	7	2	1
Meconopsis cambrica	Papa	N		s	2.36	60		p		hc		h	0		5	1			54	77	0	3.5	14.0	1321		1	4	5	7	5	0
Medicago arabica	Faba	N		n	0.69	60		a		Th		h	0		9	2			744	0	14	4.2	16.2	781		3, 17	7	5	6	5	0
Medicago lupulina	Faba	N		n	-0.43	50		a	p	Th	hc	h	0		7	4			2064	686	13	3.8	15.0	963		7, 17	7	4	8	4	0
Medicago minima	Faba	N		s	-1.97	20		a		Th		h	0		8	4			54	0	7	3.9	16.5	623		8	9	3	7	2	0
Medicago polymorpha	Faba	N		s	-1.34	60		a		Th		h	0		9	2			118	0	12	5.0	16.4	801		8	9	4	5	5	0
Medicago sativa	Faba	N		s	-0.56	90		p		hc		h	0	Rhiz1	8	4	c		54	0	0	3.5	16.2	604		3, 6	7	4	6	5	0
Medicago sativa subsp.falcata	Faba	N		s		60		p		hc		h	Rhiz1		8	4	c		54	0	0	3.5	16.2	604		3	8	3	7	3	0
Medicago sativa subsp.sativa	Faba	AN				90		p		hc		h	0					Crop	1065	17	9	3.8	15.8	768		3, 6	7	4	6	5	0
Melampyrum arvense	Scro	AN			-0.49	60		a		Th		h	0		7	3	c	Eur	50	0	0	3.6	16.2	692		3, 4, 16	7	4	8	3	0
Melampyrum cristatum	Scro	N		r	-0.88	50		a		Th		h	0		7	4	c		62	0	0	3.4	16.3	606		3	6	3	8	2	0
Melampyrum pratense	Scro	N		n	-0.88	60		a		Th		h	0		5	4			1696	323	0	3.2	14.3	1220		1, 2	5	5	2	3	0
Melampyrum sylvaticum	Scro	N		r	-0.58	35		a		Th		h	0		4	3			75	20	0	1.5	12.5	1532		1, 16	4	5	2	2	0
Melica nutans	Poac	N		n	-0.17	60		p		hc		h	Rhiz1		5	5	c		408	0	0	1.9	13.0	1483		1, 7, 16	4	5	7	3	0
Melica uniflora	Poac	N		n	-0.04	60		p		hc		h	Rhiz1		7	3			1511	246	0	3.5	15.0	1015		1	4	5	7	5	0
Melilotus albus	Faba	AN			-0.20	150		b	a	hc	Th	h	0					Eur?, As1?	913	15	7	3.7	15.8	778		3	9	3	7	4	0
Melilotus altissimus	Faba	AR			0.73	150		b		hc		h	0		7	3			1122	16	3	3.8	15.8	785		3, 17	8	6	7	7	0
Melilotus indicus	Faba	AN			-1.59	40		a		Th		h	0					Eur, As1	427	12	10	3.8	15.7	790		3, 17	9	5	7	7	2
Melilotus officinalis	Faba	AN			0.02	150		b		hc		h	0					Eur?, As1?	1142	26	7	3.7	15.7	790		3, 17	8	5	7	5	0
Melissa officinalis	Lami	AN			1.73	60		p		hc		h	Rhiz1					Eur	667	36	7	4.1	15.9	854		3, 17	6	5	7	6	0
Melittis melissophyllum	Lami	N		s	-0.47	60		p		hc		h	Rhiz1		7	3			119	0	0	5.1	15.7	1091		1, 3	5	4	7	5	0
Mentha aquatica	Lami	N		n	-0.11	90		p		hc		h	Rhiz2		7	3			2475	922	12	3.7	14.7	1065		11	7	8	7	5	0
Mentha arvensis	Lami	N		n	-1.30	60		p		hc		h	Rhiz2		5	6			1965	428	5	3.6	14.9	1017		4, 11	6	7	7	6	0
Mentha pulegium	Lami	N	VU	r	-0.70	30		p		hc		h	Rhiz2		8	3			242	45	6	4.4	15.9	869		6, 13	8	7	5	7	0
Mentha spicata	Lami	AR			1.69	90		p		hc		h	Rhiz2					Crop	1563	74	7	3.5	15.0	942		3, 17	7	8	7	7	0
Mentha suaveolens	Lami	N		s	-0.32	100		p		hc		h	Rhiz2		9	2			118	0	0	5.4	15.5	1151		3	7	8	6	6	0
Menyanthes trifoliata	Meny	N		n	-0.04	30	150	p		Gn	Hy	h	Rhiz2		5	6			1905	756	5	3.4	14.1	1201		11	8	10	4	3	0
Mercurialis annua	Euph	AR			0.28	50		a		Th		h	0		9	2			793	55	14	4.0	16.0	779		3, 4, 17	7	5	7	7	0
Mercurialis perennis	Euph	N		n	-0.65	40		p		hc		h	Rhiz2		7	3			2214	4	2	3.2	14.8	1045		1	3	6	7	7	0
Mertensia maritima	Bora	N		s	-0.53	60		p		hc		h	0		2	3			222	29	0	3.8	13.4	1083	Co	19	8	5	7	7	3
Mespilus germanica	Rosa	AR				900		p		Ph		w	0					Eur	98	1	8	4.4	16.1	861		1, 3, 17	6	4	6	6	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Meum athamanticum	Apia	N		s	-0.40	60		p		hc		h	0		4	3			164	0	0	1.6	12.9	1459		3, 6	8	5	4	3	0
Mibora minima	Poac	N		r	-0.01	8		a		Th		h	0		8	2			7	0	10	5.8	16.1	861	Co	19	9	3	7	1	0
Milium effusum	Poac	N		n	0.31	150		p		hc		h	0		5	6			1391	91	0	3.6	15.3	928		1	4	5	6	5	0
Milium vernale	Poac	N		o		5		a		Th		h	0		9	1			0	0	2	6.8	16.6	718		19	9	3	6	2	0
Mimulus	Scro	AN			-0.47	50		p		hc		h	Node2					Am4, SAm	1767	237	5	3.2	14.3	1106		13, 14	7	9	6	5	0
Mimulus guttatus	Scro	AN				50		p		hc		h	Node2					Am4	996	44	4	3.2	14.5	1020		13, 14	7	9	6	6	0
Mimulus guttatus x luteus (M. x robertsii)	Scro	AN				50		p		hc		h	Node2					Gard	473	125	0	3.1	14.0	1162		13, 14	7	8	7	5	0
Mimulus luteus	Scro	AN				50		p		hc		h	Node2					SAm	186	5	0	2.8	13.6	1144		13, 14	7	9	5	5	0
Mimulus moschatus	Scro	AN				40		p		hc		h	Node2					Am4	361	13	2	3.3	14.6	1099		13, 14	7	8	5	5	0
Minuartia hybrida	Cary	N		s	-1.70	20		a		Th		h	0		9	2			294	0	1	3.5	16.0	716		7	9	3	8	3	0
Minuartia recurva	Cary	N		o		5		p		Ch		h	0		1	3			0	1	0	4.8	14.2	1414		15	8	4	3	1	0
Minuartia rubella	Cary	N		r	0.01	6		p		Ch		h	0		1	6			7	0	0	0.8	11.2	1679		15	8	4	7	1	0
Minuartia sedoides	Cary	N		s	-0.75	8		p		Ch		h	0		1	3			76	0	0	1.2	11.4	2095		15	8	5	4	2	0
Minuartia stricta	Cary	N	EN	r		10		p		Ch		h	0		1	6			1	0	0	0.4	12.1	1443		11	9	9	8	2	0
Minuartia verna	Cary	N		s	-0.42	15		p		Ch		h	0		4	5			139	30	0	2.7	13.9	1215		7, 16	8	4	7	1	0
Misopates orontium	Scro	AR			-0.89	50		a		Th		h	0		8	4			488	24	11	4.3	15.9	864		4	7	5	6	6	0
Moehringia trinervia	Cary	N		n	-0.40	40		a		Th		h	0		7	3			1990	259	4	3.5	15.0	982		1	4	5	7	6	0
Moenchia erecta	Cary	N		n	-0.65	12		a		Th		h	0		8	2			418	0	14	4.2	16.0	823		8	9	4	4	3	0
Molinia caerulea	Poac	N		n	-0.34	130		p		hc		h	0gr		5	4			2244	897	6	3.5	14.2	1179		12	7	8	3	2	0
Moneses uniflora	Pyro	N	VU	r	0.14	4		p		hc		h	Rhiz1		4	6			27	0	0	2.0	13.0	985		2	4	5	4	1	0
Monotropa hypopitys	Mono	N		n	-1.09	30		p		Gn		h	Rhiz1		7	6			288	24	0	3.7	15.8	817		1	4	5	6	2	0
Montia fontana	Port	N		n	0.14	20		a	p	Th	Hy	h	Node1		5	3			2197	547	14	3.4	14.1	1198		11	7	9	5	3	0
Muscari neglectum	Lili	NA	VU	r	1.55	30		p		Gb		h	0tb	DRg	8	4			13	0	0	3.3	16.3	590		3, 8	7	3	7	5	0
Mycelis muralis	Aste	N		n	0.01	100		p		hc		h	0		7	3			1302	0	0	3.3	15.2	944		1, 16	4	5	7	5	0
Myosotis alpestris	Bora	N		r	-0.22	25		p		hc		h	0		1	6			7	0	0	-0.1	11.6	1623		7, 15, 16	8	4	8	2	0
Myosotis arvensis	Bora	AR			-0.34	40		a		Th		h	0		5	4			2577	748	8	3.5	14.6	1056		3, 4	7	5	6	6	0
Myosotis discolor	Bora	N		n	0.14	25		a		Th		h	0		7	3			2317	521	14	3.5	14.4	1088		6	7	5	5	3	0
Myosotis laxa	Bora	N		n	0.65	40		b		hc		h	0		5	6			2409	757	8	3.5	14.5	1085		11	7	9	6	5	0
Myosotis ramosissima	Bora	N		n	0.11	25		a		Th		h	0		8	3			1174	52	14	3.8	15.5	823		8, 16	8	3	6	3	0
Myosotis scorpioides	Bora	N		n	-0.77	57		p		hc	Hy	h	Stol1		7	4			2291	662	3	3.5	14.7	1037		11, 14	7	9	6	6	0
Myosotis secunda	Bora	N		n	0.52	55		p		hc		h	Stol1		7	1			1736	498	6	3.3	14.0	1237		11	6	9	5	4	0
Myosotis sicula	Bora	N		o		15		a		Th		h	0		9	1			0	0	2	6.2	17.0	794		19	8	7	6	3	0
Myosotis stolonifera	Bora	N		s	0.77	20		p		hc		h	Stol1		4	1			115	0	0	1.6	13.2	1362		11, 14	8	9	5	4	0
Myosotis sylvatica	Bora	N		n	2.18	47		p		hc		h	0		7	5			1690	24	4	3.4	15.1	931		1	6	5	7	5	0
Myosoton aquaticum	Cary	N		n	0.00	100		p		hc		h	Node1		7	4			927	0	0	3.6	16.0	747		11, 13, 14	7	8	7	8	0
Myosurus minimus	Ranu	NA		n	-0.66	8		a		Th		h	0		7	3			339	0	2	3.8	16.3	691		4	8	7	6	5	0
Myrica gale	Myri	N		n	-0.75	150		p		Pn		w	Rhiz2		5	2			976	553	0	3.4	13.8	1353		12	8	9	3	2	0
Myriophyllum alterniflorum	Halo	N		n	1.00		120	p		Hy		h	Irreg		5	2			1390	327	3	3.2	13.8	1299		13, 14	7	12	5	3	0
Myriophyllum aquaticum	Halo	AN					200	p		Hy		h	Irreg					SAm	268	2	7	4.3	16.1	838		13	7	12	5	3	0
Myriophyllum spicatum	Halo	N		n	0.63		250	p		Hy		h	Irreg		7	5			1409	373	7	3.7	15.1	907		13, 14	7	12	7	7	0
Myriophyllum verticillatum	Halo	N		n	-0.89		300	p		Hy		h	Irreg	DRa	7	6			360	130	0	3.8	15.7	765		13, 14	7	12	7	7	0
Myrrhis odorata	Apia	AN			-0.25	180		p		hc		h	0					Eur	1152	147	0	3.0	14.1	1084		3, 17	7	6	7	7	0
Najas flexilis	Naja	N		s	0.48		30	a		Hz		h	0		4	6			28	28	0	4.1	13.8	1338		13	6	12	7	4	1
Najas marina	Naja	N	VU	r			97	a		Hz		h	0		8	6	c		4	0	0	3.9	16.1	600		13	5	12	9	6	0
Narcissus pseudonarcissus	Lili	N		n	0.87	35		p		Gb		h	0tb		8	2			646	0	3	3.7	15.6	920		3	7	5	6	5	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Nardus stricta	Poac	N		n	-0.68	40		p		hc		h	0		5	3			2051	560	3	3.2	14.0	1226		8	7	7	3	2	0
Narthecium ossifragum	Lili	N		n	-0.32	45		p		hc		h	Rhiz1		5	1			1628	716	0	3.3	13.8	1296		12	8	9	2	1	0
Neotinea maculata	Orch	N	EX	x		30		p		Gn		h	0		9	1			1	24	0	4.7	14.8	1107		7, 16	8	4	8	2	0
Neottia nidus-avis	Orch	N		n	-0.91	47		p		Gn		h	0		7	4			742	99	0	3.5	15.2	938		1	2	4	7	5	0
Nepeta cataria	Lami	AR			-1.23	100		p		hc		h	Rhiz1		7	4			478	6	1	3.7	15.9	761		3, 7	7	4	7	6	0
Nuphar lutea	Nymp	N		n	-0.13		150	p		Hy		h	Rhiz1		5	4			1140	452	0	3.6	15.1	975		13, 14	7	11	7	6	1
Nuphar pumila	Nymp	N		s	0.87		150	p		Hy		h	Rhiz1		4	6			68	0	0	1.7	12.5	1680		13	7	11	6	4	0
Nymphaea alba	Nymp	N		n	1.02		150	p		Hy		h	Rhiz1		7	3			1511	340	5	3.6	14.8	1090		13	7	11	6	4	0
Nymphoides peltata	Meny	N		s	2.81		200	p		Hy		h	Irreg	Rhiz2	7	5			45	0	0	3.5	16.4	603		13, 14	8	11	7	6	0
Odontites vernus	Scro	N		n	-0.46	50		a		Th		h	0		7	5			2320	865	7	3.7	14.7	1047		6	7	5	6	5	0
Oenanthe aquatica	Apia	N		n	-0.35	150		a	p	Hz	Hy	h	0		7	4			505	183	0	3.8	15.6	792		11	7	10	7	6	0
Oenanthe crocata	Apia	N		n	-0.04	150		p		hc	Hy	h	0		8	2			1599	633	12	4.0	14.8	1124		11, 14	7	9	6	7	1
Oenanthe fistulosa	Apia	N		n	-1.18	80		p		hc	Hy	h	0		7	3			804	101	6	3.9	15.8	771		11	7	9	7	6	0
Oenanthe fluviatilis	Apia	N		n	0.19	100		p		Hy		h	Node2		7	1			235	45	0	3.7	16.0	718		14	8	10	8	6	0
Oenanthe lachenalii	Apia	N		n	-0.36	100		p		hc		h	0		8	2			551	118	3	4.3	15.4	957		11	8	8	8	5	3
Oenanthe pimpinelloides	Apia	N		n	0.48	100		p		hc		h	0		9	1			241	0	0	4.4	16.2	849		6	7	7	6	3	0
Oenanthe silaifolia	Apia	N		s	0.37	100		p		hc		h	0		8	3			76	0	0	3.7	16.3	661		6	8	9	7	5	0
Oenothera	Onag	AN			1.02	100		b		hc		h	0					Am, SAm	1185	38	11	3.9	15.8	839		3, 16, 17, 19	9	4	6	4	0
Oenothera biennis	Onag	AN				100		b		hc		h	0					Am?	614	9	2	3.9	15.9	777		3, 16, 17, 19	9	4	6	4	0
Oenothera biennis x glazoviana (O. x fallax)	Onag	AX				100		b		hc		h	0						125	2	1	3.7	15.9	798		3, 16, 19	8	3	6	5	0
Oenothera cambrica	Onag	AN				80		b		hc		h	0					Am?	217	0	4	4.2	15.9	921		3, 16, 17, 19	9	4	6	3	0
Oenothera glazioviana	Onag	AN				100		b		hc		h	0					Am	966	24	10	4.0	15.9	832		3, 16, 19	9	4	6	5	0
Onobrychis viciifolia	Faba	NA		n	-0.76	60		p		hc		h	0		7	4			265	0	0	3.6	16.2	710		7	7	4	8	3	0
Ononis reclinata	Faba	N	VU	r	0.27	15		a		Th		h	0		9	1			10	0	3	5.6	15.8	999	Co	18	9	2	8	2	1
Ononis repens	Faba	N		n	-0.45	60		p		Ch	hc	sw	Rhiz2		7	3			1664	178	13	3.8	15.3	878		7	8	4	6	3	0
Ononis spinosa	Faba	N		n	-0.82	70		p		Ch	hc	sw	0		8	4			724	0	0	3.6	16.0	718		6, 7	8	4	8	3	0
Onopordum acanthium	Aste	AR			0.66	200		p		hc		h	0		7	4			778	5	7	3.7	15.9	733		3, 17	8	4	6	7	0
Ophioglossum azoricum	Ophi	N		s		10		p		Gn		h	Root		5	2			72	12	4	4.3	13.3	1252		8	8	6	5	2	1
Ophioglossum lusitanicum	Ophi	N	VU	r		4		p		Gn		h	Root		9	1			1	0	3	6.7	16.2	848		8	8	6	5	2	0
Ophioglossum vulgatum	Ophi	N		n		30		p		Gn		h	Root		7	6			1474	209	6	3.6	15.1	964		6, 7	8	7	7	3	0
Ophioglossum vulgatum sens.lat.	Ophi	N		n	0.72	30		p		Gn		h	Root		7	6			1474	209	6	3.6	15.1	964		6	8	7	7	3	0
Ophrys apifera	Orch	N		n	0.83	45		p		Gn		h	0		9	2			936	182	4	3.9	15.7	807		7	8	4	8	3	0
Ophrys fuciflora	Orch	N	VU	r		35		p		Gn		h	0		9	2			6	0	0	4.0	16.4	766		7	8	4	9	2	0
Ophrys insectifera	Orch	N		n	-1.34	60		p		Gn		h	0		7	3			264	31	0	3.7	15.8	803		1, 7, 11	8	5	9	2	0
Ophrys sphegodes	Orch	N		s	-0.11	20		p		Gn		h	0		9	2			62	0	1	4.0	16.3	729		7	8	4	9	3	0
Orchis laxiflora	Orch	N		o		50		p		Gn		h	0		8	4	c		0	0	8	6.4	16.7	800		6, 11	9	9	8	2	1
Orchis mascula	Orch	N		n	-0.72	40		p		Gn		h	0		7	3			1962	475	9	3.5	14.7	1073		1, 7, 16	6	5	7	4	0
Orchis militaris	Orch	N	VU	r		45		p		Gn		h	0		7	4	c		19	0	0	3.4	16.3	694		7	7	3	9	2	0
Orchis morio	Orch	N		n	-0.98	20		p		Gn		h	0		7	3			931	124	8	3.9	15.8	801		6, 7	8	4	7	3	0
Orchis purpurea	Orch	N		s	-0.56	50		p		Gn		h	0		7	3			36	0	1	4.0	16.5	748		1	5	4	8	3	0
Orchis simia	Orch	N	VU	r		30		p		Gn		h	0		8	3			10	0	0	3.8	16.4	697		7	8	3	8	2	0
Orchis ustulata	Orch	N		s	-1.77	15		p		Gn		h	0		7	3			265	0	0	3.5	15.7	777		7	8	4	8	2	0
Oreopteris limbosperma	Thel	N		n	-0.18	90		p		hc		h	0		7	3			1585	138	0	2.8	13.7	1323		1, 16	6	6	4	3	0
Origanum vulgare	Lami	N		n	-0.10	65		p		Ch	hc	h	0	Node1	8	5			1148	179	0	3.7	15.3	898		7, 16	6	4	7	4	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Ornithogalum angustifolium	Lili	AN			1.05	30		p		Gb		h	0tb	DRg	8	3		Eur	1139	8	12	3.7	15.5	848		1, 3, 7, 8	8	3	6	4	0
Ornithogalum pyrenaicum	Lili	N		s	0.14	75		p		Gb		h	0tb		9	2			33	0	0	3.6	16.2	773		1, 3	5	5	7	5	0
Ornithopus perpusillus	Faba	N		n	-0.18	10		a		Th		h	0		7	2			1002	20	12	3.9	15.5	935		8	7	4	4	3	0
Ornithopus pinnatus	Faba	N		r		8		a		Th		h	0		8	2			3	0	7	7.0	16.4	832		8, 10	8	3	3	2	0
Orobanche alba	Orob	N		s	-0.38	25		a	p	Th	Gn	h	0		7	3			92	42	2	4.0	13.7	1493		16	8	3	7	2	0
Orobanche artemisiae-campestris	Orob	N	EN	r		60		a	p	Th	Gn	h	0		8	3			6	0	0	4.5	16.5	753	Co	18	8	4	8	5	0
Orobanche caryophyllacea	Orob	N	VU	r	0.01	40		p	a	Gn	Th	h	0		7	3	c		5	0	0	4.1	16.4	782		18	8	3	9	2	0
Orobanche elatior	Orob	N		n	-0.33	75		p		Gn		h	0		7	4	c		267	0	0	3.6	16.2	713		3, 7	8	3	8	3	0
Orobanche hederae	Orob	N		n	0.20	60		p	a	Gn	Th	h	0		9	2			160	122	11	4.9	15.5	1004		1, 3, 16	4	5	6	5	0
Orobanche minor	Orob	N		n	-0.20	60		a	p	Th	Gn	h	0		8	3			800	0	14	4.0	16.1	774		4, 5	7	4	8	6	0
Orobanche purpurea	Orob	N	VU	r	0.50	45		p	a	Gn	Th	h	0		7	3			25	0	12	4.9	16.3	776		3, 6	7	4	7	2	0
Orobanche rapum-genistae	Orob	N		s	-0.35	85		p		Gn		h	0		8	2			422	30	4	4.1	15.7	890		10	7	5	3	2	0
Orobanche reticulata	Orob	N		r		60		b	a	Gn	Th	h	0		7	3	c		7	0	0	3.1	15.3	666		3, 7	7	6	7	6	0
Orthilia secunda	Pyro	N		n	-0.40	5		p		Ch		h	Rhiz1		4	6			228	7	0	1.4	12.2	1568		2, 10, 16	5	5	5	3	0
Osmunda regalis	Osmu	N		n	0.56	160		p		hc		h	0		8	2			735	576	4	4.2	14.5	1225		1, 11	6	9	5	4	0
Otanthus maritimus	Aste	N	EX	x	-1.49	30		p		hc		h	Rhiz2		9	1			23	6	3	5.1	16.0	874	Co	19	9	2	5	2	3
Oxalis acetosella	Oxal	N		n	-0.74	10		p		hc		h	Rhiz1		5	5			2393	791	2	3.4	14.4	1138		1, 2, 16	4	6	4	4	0
Oxalis articulata	Oxal	AN				25		p		hc		h	Rhiz1					SAm	541	65	14	4.4	15.8	861		3, 17, 19	7	3	4	2	0
Oxalis corniculata	Oxal	AN			1.62	15		p	a	hc	Th	h	Node2					Unk	998	32	11	3.9	15.8	843		3, 17	7	4	6	5	0
Oxalis debilis	Oxal	AN				20		p		Gb		h	DRg					SAm	137	10	12	4.3	16.1	784		3, 17	7	4	6	8	0
Oxalis exilis	Oxal	AN				5		p	a	hc	Th	h	Node2					Aus, NZ	323	11	8	3.8	15.7	782		3, 17	7	4	6	4	0
Oxalis incarnata	Oxal	AN				20		p		Gb		h	DRa					SAf	146	5	11	4.6	15.8	927		3, 17	6	5	6	5	0
Oxalis latifolia	Oxal	AN				20		p		Gb		h	DRg					SAm	67	1	11	5.1	16.1	892		3, 17	6	5	6	5	0
Oxalis pes-caprae	Oxal	AN				30		p		Gb		h	DRg					SAf	10	0	10	5.9	16.1	861		3, 4	7	4	6	5	0
Oxalis stricta	Oxal	AN			-0.09	40		a		Th		h	Rhiz1					As2, Am	396	27	4	3.8	15.7	895		3, 17	6	5	6	5	0
Oxyria digyna	Poly	N		n	-0.71	30		p		hc		h	0		1	6			311	24	0	1.7	12.1	1940		15, 16	7	6	5	3	0
Oxytropis campestris	Faba	N	VU	r		20		p		hc		h	0		1	5	c		3	0	0	0.4	11.5	1392		7	9	4	8	2	0
Oxytropis halleri	Faba	N		r	0.16	13		p		hc		h	0		4	3			16	0	0	2.5	12.9	1141		7, 18, 19	9	3	8	2	0
Panicum miliaceum	Poac	AC				100		a		Th		h	0					Crop	359	6	6	4.0	16.0	787		1, 4, 17	9	3	7	6	0
Papaver argemone	Papa	AR			-1.79	45		a		Th		h	0		8	3			874	48	6	3.7	15.7	759		4	7	4	6	5	0
Papaver dubium	Papa	AR			0.23	60		a		Th		h	0		8	4			1875	402	13	3.7	15.0	910		3, 4	7	5	6	5	0
Papaver hybridum	Papa	AR			-0.35	50		a		Th		h	0		9	2			357	33	6	4.1	15.9	776		4	7	4	8	4	0
Papaver rhoeas	Papa	AR			-0.41	60		a		Th		h	0		8	3			1712	370	14	3.8	15.3	877		3, 4	7	5	7	6	0
Papaver somniferum	Papa	AR			2.54	100		a		Th		h	0		0	3		Eur?	1600	190	12	3.7	15.3	868		3, 4, 17	7	4	7	8	0
Parapholis incurva	Poac	N		s	0.09	10		a		Th		h	0		9	1			109	1	5	4.4	16.4	709	Co	18, 19, 21	9	6	7	4	4
Parapholis strigosa	Poac	N		n	0.14	25		a		Th		h	0		8	2			347	63	5	4.5	15.7	876	Co	21	8	6	7	6	5
Parentucellia viscosa	Scro	N		n	0.64	50		a		Th		h	0		9	1			165	101	11	5.1	15.4	1129		3, 5	7	7	7	5	0
Parietaria judaica	Urti	N		n	0.08	52		p		hc		h	0		9	2			1336	317	14	4.1	15.6	865		16, 17	7	4	8	5	1
Paris quadrifolia	Lili	N		n	-0.68	40		p		Gn		h	Rhiz2		5	4			714	0	0	3.2	15.3	877		1	3	6	7	6	0
Parnassia palustris	Saxi	N		n	-0.84	20		p		hc		h	0		5	6			1091	302	0	3.0	13.7	1236		11	8	8	7	3	0
Pastinaca sativa	Apia	N		n	-0.39	180		b		hc		h	0		7	4			1011	0	7	3.8	16.0	774		3, 6, 7	7	4	7	5	0
Pedicularis palustris	Scro	N		n	-0.88	60		b		hc		h	0		5	3			1744	583	1	3.3	14.0	1226		11	8	8	5	2	0
Pedicularis sylvatica	Scro	N		n	-1.28	25		p		hc		h	0		7	3			2118	744	9	3.4	14.1	1202		10, 12, 14	8	8	3	2	0
Pentaglottis sempervirens	Bora	AN			1.81	100		p		hc		h	0					Eur	1753	88	11	3.6	15.2	915		1, 3, 17	6	5	6	7	0
Persicaria amphibia	Poly	N		n	0.27	60	200	p		Hy	hc	h	Rhiz2	Irreg	5	6			2013	644	11	3.7	14.9	986		11, 13	7	10	6	6	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Persicaria bistorta	Poly	N		n	-0.44	80		p		hc		h	Rhiz1		5	5			1355	43	0	3.3	14.8	1021		6	6	7	6	6	0
Persicaria hydropiper	Poly	N		n	-0.41	75		a		Th		h	0		7	6			2041	740	9	3.7	14.8	1093		11, 13, 14	7	7	6	6	0
Persicaria lapathifolia	Poly	N		n	-0.04	100		a		Th		h	0		8	6			1881	434	10	3.7	15.1	958		4, 11	7	6	7	7	0
Persicaria maculosa	Poly	N		n	-0.95	80		a		Th		h	0		7	5			2578	934	12	3.6	14.6	1077		3, 4	7	6	6	7	0
Persicaria minor	Poly	N		n	-0.06	40		a		Th		h	0		7	5			296	93	1	3.6	15.2	1003		13, 14	7	8	5	8	0
Persicaria mitis	Poly	N		s	-0.90	75		a		Th		h	0		7	3			203	31	1	3.8	15.9	780		13, 14	7	8	6	9	0
Persicaria vivipara	Poly	N		n	-0.58	30		p		hc		h	Rhiz1		2	6			446	5	0	1.6	12.2	1588		7, 15	8	6	6	2	0
Persicaria wallichii	Poly	AN			0.59	150		p		Gn		h	Rhiz2					As1	390	145	0	3.8	14.8	1149		3	8	4	5	6	0
Petasites albus	Aste	AN			0.01	70		p		Gn		h	Rhiz2					Eur	335	10	0	2.8	13.9	1000		1, 3	5	5	5	7	0
Petasites fragrans	Aste	AN			0.80	30		p		Gn		h	Rhiz2					Eur	1328	582	12	4.1	15.3	941		3	5	5	6	6	0
Petasites hybridus	Aste	N		n	-0.15	120		p		Gn		h	Rhiz2		7	3			1825	569	2	3.6	14.8	1002		14	6	7	7	7	0
Petrorhagia nanteuilii	Cary	N	EN	r		50		a		Th		h	0		8	2			6	0	5	5.3	16.7	774	Co	19	9	2	6	1	3
Petrorhagia prolifera	Cary	AN	CR			50		a		Th		h	0		7	3		Eur	5	0	0	3.8	16.5	613		8	8	3	5	2	0
Petrorhagia prolifera sens.lat.	Cary	N		n	-0.68	50		a		Th		h	0		8	3			6	0	5	5.3	16.7	774		8, 19	8	3	6	2	1
Petroselinum crispum	Apia	AR			-0.34	75		b		hc		h	0					Crop	401	42	10	4.2	15.8	819		3, 17	8	4	7	5	1
Petroselinum segetum	Apia	N		n	0.12	100		b		hc		h	0		8	2			482	0	3	4.1	16.2	751		3, 4	8	5	8	6	0
Peucedanum officinale	Apia	N		r	0.29	200		p		hc		h	0		8	3			10	0	0	4.1	16.7	599	Co	19	7	5	8	4	0
Peucedanum ostruthium	Apia	AR			0.03	100		p		hc		h	0					Eur	184	21	0	2.6	13.5	1127		5	6	5	7	7	0
Peucedanum palustre	Apia	N		s	-0.07	150		b		hc		h	0		5	4	c		47	0	0	3.6	16.1	631		11	7	9	7	5	0
Phalaris arundinacea	Poac	N		n	0.23	200		p		Hy	Gn	h	Rhiz2		5	6			2449	753	6	3.6	14.6	1044		11, 14	7	9	7	7	1
Phalaris canariensis	Poac	AN			-0.32	120		a		Th		h	0					Eur?	1102	60	10	3.7	15.5	856		3, 17	8	4	7	6	0
Phalaris minor	Poac	AN				45		a		Th		h	0		9	1		Eur	80	4	6	4.1	15.9	760		4, 17	8	5	6	5	0
Phegopteris connectilis	Thel	N		n	-0.22	40		p		Gn		h	Rhiz2		5	6			1017	88	0	2.4	13.1	1515		1, 16	4	6	4	4	0
Phleum alpinum	Poac	N		s	-0.30	50		p		hc		h	Rhiz1		2	6			33	0	0	-0.7	10.8	1770		11, 15	8	5	6	4	0
Phleum arenarium	Poac	N		n	-0.56	17		a		Th		h	0		8	3			219	69	9	4.5	15.3	918	Co	19	9	3	5	3	1
Phleum bertolonii	Poac	N		n		50		p		hc		h	0		8	3			1927	82	4	3.5	15.1	942		3, 6	8	4	7	4	0
Phleum phleoides	Poac	N		r	-0.10	60		p		hc		h	0		7	4	c		26	0	0	3.3	16.2	621		8	8	3	8	2	0
Phleum pratense	Poac	N		n		150		p		hc		h	0		7	4			2294	672	3	3.5	14.8	1023		3, 6	8	5	7	6	0
Phleum pratense sens.lat.	Poac	N		n	-0.33	100		p		hc		h	0		8	4			2429	719	10	3.5	14.7	1047		3, 6	8	5	7	6	0
Phragmites australis	Poac	N		n	0.43	270		p		Hy	Gn	h	Rhiz2		6	6			2182	785	11	3.7	14.7	1055		11	7	10	7	6	2
Phyllitis scolopendrium	Aspl	N		n	0.45	60		p		hc		h	0		7	3			2115	934	14	3.8	14.8	1048		1, 16	4	5	7	5	0
Phyllodoce caerulea	Eric	N	VU	r		20		p		Ch		w	0		1	3			3	0	0	-1.1	10.6	1829		10, 15	7	4	3	2	0
Physospermum cornubiense	Apia	N	VU	r	0.07	120		p		hc		h	0		7	3			14	0	0	5.4	15.5	1279		1, 10	6	5	4	4	0
Phyteuma orbiculare	Camp	N		s	-0.16	50		p		hc		h	0		5	3			55	0	0	3.9	16.3	806		7	7	4	8	3	0
Phyteuma spicatum	Camp	NA	VU	r	-0.73	80		p		hc		h	0		7	3			8	0	0	4.1	16.4	826		1, 3	5	5	6	5	0
Picea abies	Pina	AN				4600		p		Ph		w	0		4	5	c	Eur, As	1460	120	2	3.2	14.7	1054		2	7	6	3	4	0
Picea sitchensis	Pina	AN				5500		p		Ph		w	0					Am4	1144	215	1	3.2	14.1	1223		2	7	7	2	2	0
Picris echioides	Aste	AR			0.77	80		a	b	Th	hc	h	0		8	3			1191	25	10	3.9	15.9	795		3, 4	7	5	7	6	0
Picris hieracioides	Aste	N		n	-0.06	95		p		hc		h	0		7	5			885	0	8	3.8	16.0	781		7	8	4	8	3	0
Pilosella aurantiaca	Aste	AN				20		p		hc		h	Rhiz2	Stol2	4	3		Eur	1343	69	4	3.4	14.9	985		3, 17	8	4	6	2	0
Pilosella flagellaris	Aste	N		n		13		p		hc		h	Stol2		5	3	c		3	0	0	3.5	11.5	1153		3, 16	8	4	7	4	0
Pilosella flagellaris subsp.bicapitata	Aste	NE	VU	r		13		p		hc		h	Stol2		4	1			3	0	0	3.5	11.5	1153		16	8	5	6	3	0
Pilosella flagellaris subsp.flagellaris	Aste	AN				13		p		hc		h	Stol2					Eur	72	0	0	3.0	14.9	786		3	8	4	7	4	0
Pilosella officinarum	Aste	N		n	-0.59	12		p		hc		h	Stol2		7	3			2629	899	12	3.5	14.5	1094		7	8	4	7	2	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	Cl	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Pilosella peleteriana	Aste	N	VU	r		9		p		hc		h	Stol2		5	2			11	0	12	5.2	16.1	871		7, 16	8	3	8	2	0
Pilularia globulifera	Mars	N		s	-0.03	10	10	p		Hy		h	Rhiz2		7	2			312	24	3	3.6	14.8	1040		13	8	10	4	2	0
Pimpinella major	Apia	N		n	-0.16	100		p		hc		h	0		7	3			584	109	0	3.6	15.5	819		6	7	5	7	6	0
Pimpinella saxifraga	Apia	N		n	-0.31	70		p		hc		h	0		7	4			1938	391	0	3.6	15.0	968		7	7	4	7	3	0
Pinguicula alpina	Lent	NA	EX	x		5		p		hc		h	0		1	4			1	0	0	3.0	13.6	752		11	9	8	8	2	0
Pinguicula grandiflora	Lent	N		o		8		p		hc		h	0		7	1			0	74	0	5.1	14.7	1270		10, 12	7	8	4	2	0
Pinguicula lusitanica	Lent	N		n	-0.83	3		p		hc		h	0		7	1			500	309	0	3.9	13.7	1475		10, 11	8	8	4	2	0
Pinguicula vulgaris	Lent	N		n	-0.76	8		p		hc		h	0		4	6			1523	484	0	3.0	13.6	1305		11, 12	8	8	6	2	0
Pinus contorta	Pina	AN				2500		p		Ph		w	0					Am4	444	116	2	3.3	14.0	1302		2	7	5	5	2	0
Pinus nigra	Pina	AN				4200		p		Ph		w	0					Eur	1009	25	6	3.7	15.5	889		1, 2, 17, 19	7	3	5	2	0
Pinus sylvestris	Pina	N		s	0.40	3000		p		Ph		w	0		4	5			65	0	0	0.8	11.7	1930		2	7	6	2	2	0
Pisum sativum	Faba	AC				200		a		Th		h	0		0	3		Eur	137	10	2	4.0	15.6	896		3, 4	7	4	7	7	0
Plantago coronopus	Plan	N		n	0.16	6		b		hc		h	0		8	4			1445	303	14	4.1	14.8	1065		3, 6, 18	8	6	6	4	2
Plantago lanceolata	Plan	N		n	1.35	15		p		hc		h	Rhiz1		8	4			2804	985	14	3.5	14.5	1105		6, 7	7	5	6	4	0
Plantago major	Plan	N		n	0.09	15		p		hc		h	0		6	5			2766	975	14	3.5	14.5	1102		3, 5	7	5	6	7	0
Plantago maritima	Plan	N		n	-0.28	15		p		hc		h	0		3	4			1295	405	8	3.8	14.0	1248	Co	15, 21	8	7	6	4	3
Plantago media	Plan	N		n	-0.79	6		p		hc		h	Rhiz1		7	5			1243	0	0	3.5	15.6	804		7	8	4	7	3	0
Platanthera bifolia	Orch	N		n	-1.67	40		p		Gn		h	0		5	5			949	308	1	3.5	14.3	1235		1, 10	6	6	6	2	0
Platanthera chlorantha	Orch	N		n	-0.88	50		p		Gn		h	0		7	3			1163	251	0	3.4	14.7	1147		1, 6	5	5	7	4	0
Poa alpina	Poac	N		s	-0.31	40		p		hc		h	0	DRi	1	6			72	2	0	0.6	11.5	2142		15	7	5	7	3	0
Poa angustifolia	Poac	N		n		70		p		hc		h	Rhiz2		8	6			831	0	6	3.7	15.8	790		7, 8	7	5	7	5	0
Poa annua	Poac	N		n	0.83	20		a	p	Th	hc	h	0		6	4			2792	985	14	3.5	14.5	1105		3, 4, 5, 6	7	5	6	7	1
Poa bulbosa	Poac	N		s	0.63	35		p		hc		h	0	DRi	8	4			72	0	6	4.6	16.4	741	Co	19	8	3	5	2	0
Poa chaixii	Poac	AN			-0.05	100		p		hc		h	0					Eur	169	3	1	3.1	14.5	959		1	5	5	6	5	0
Poa compressa	Poac	N		n	0.21	50		p		hc		h	Rhiz2		7	3			1063	0	2	3.6	15.6	850		3	9	4	7	4	0
Poa flexuosa	Poac	N	VU	r		22		p		hc		h	0		1	3			8	0	0	-0.6	10.5	1907		15, 16	8	5	3	2	0
Poa glauca	Poac	N		s	-0.48	40		p		hc		h	0		2	6			62	0	0	1.1	11.6	2252		15, 16	7	5	6	3	0
Poa humilis	Poac	N		n		30		p		hc		h	Rhiz2		?	?			1865	297	5	3.4	14.3	1134		6, 19	8	6	6	4	2
Poa infirma	Poac	N		s	1.33	10		a		Th		h	0		9	1			54	0	13	5.9	16.3	935		3	8	4	5	5	0
Poa nemoralis	Poac	N		n	0.27	75		p		hc		h	0		5	6			1960	0	5	3.2	14.8	1015		1	4	5	6	5	0
Poa palustris	Poac	AN			-1.55	100		p		hc		h	0		5	6		NHem	132	12	2	3.7	15.2	948		11, 13, 14	7	9	7	6	0
Poa pratensis sens.lat.	Poac	N		n	0.60	58		p		hc		h	Rhiz2		6	6			2766	928	10	3.5	14.5	1102		3, 5, 6, 7	7	5	6	5	1
Poa pratensis sens.str.	Poac	N		n		75		p		hc		h	Rhiz2		6	6			1637	423	2	3.6	14.8	1017		3, 5, 6, 7	7	5	6	5	0
Poa trivialis	Poac	N		n	1.10	70		p		hc		h	0	Node1	6	4			2721	903	11	3.6	14.5	1095		1, 3, 6	7	6	6	6	0
Polemonium caeruleum	Pole	N		r	1.17	90		p		hc		h	0		5	4	c		16	0	0	1.9	13.9	1246		16	5	5	7	6	0
Polycarpon tetraphyllum	Cary	NA		r	-0.04	25		a		Th		h	0		9	1			16	0	14	6.3	16.3	923		3, 4, 17	9	4	6	4	0
Polygala amarella	Poly	N	VU	r	-0.10	10		p		Ch		h	0		5	3	c		18	0	1	2.8	15.0	1037		7	9	6	9	1	0
Polygala calcarea	Poly	N		n	-0.37	10		p		Ch		h	0		8	1			153	0	0	3.7	16.2	783		7	7	3	8	2	0
Polygala serpyllifolia	Poly	N		n	-0.50	15		p		Ch		h	0		7	2			2150	717	11	3.4	14.1	1200		8, 10, 12	8	7	2	2	0
Polygala vulgaris	Poly	N		n	-1.14	25		p		Ch		h	0		7	3			2176	665	8	3.5	14.4	1114		7	8	5	6	3	0
Polygonatum multiflorum	Lili	N		n	0.27	80		p		Gn		h	Rhiz2		7	3			268	0	0	3.6	16.0	829		1	4	5	7	6	0
Polygonatum odoratum	Lili	N		s	0.34	40		p		Gn		h	Rhiz2		7	5			48	0	0	3.1	15.1	1091		1, 16	5	3	7	3	0
Polygonatum verticillatum	Lili	N	VU	r		80		p		Gn		h	Rhiz2		4	3			10	0	0	1.2	13.1	1061		1	4	5	5	5	0
Polygonum arenastrum	Poly	AR				20		a		Th		h	0		6	5			1937	480	10	3.7	14.9	1008		3, 4	7	5	7	6	0
Polygonum aviculare	Poly	N		n		30		a		Th		h	0		6	6			2030	819	2	3.7	14.8	1039		4, 17	7	5	6	7	0
Polygonum aviculare agg.	Poly	N		n	-0.70	30		a		Th		h	0		6	6			2605	906	13	3.6	14.6	1073		3, 4, 17	7	5	7	6	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Polygonum boreale	Poly	N		s		20		a		Th		h	0		4	2			109	0	0	3.6	12.4	1084		4	7	5	6	6	0
Polygonum maritimum	Poly	N	EN	r	0.21	20		p		Ch		h	0		9	1			16	1	4	6.0	16.2	950	Co	19	9	3	5	4	3
Polygonum oxyspermum	Poly	N		n	0.01	20		a		Th		h	0		6	3			305	75	9	4.6	14.8	1102	Co	19	9	6	7	8	3
Polygonum rurivagum	Poly	AR				20		a		Th		h	0		7	3			274	0	4	3.9	16.1	738		4	8	4	8	5	0
Polypodium cambricum	Poly	N		n		40		p		hc	Gn	h	Rhiz1		9	1			196	157	1	4.4	15.1	1102		3, 16	6	5	7	3	0
Polypodium interjectum	Poly	N		n		40		p		hc	Gn	h	Rhiz1		7	2			1188	487	12	3.9	14.9	1074		1, 3, 16	5	5	5	3	0
Polypodium vulgare	Poly	N		n		40		p		hc	Gn	h	Rhiz1		5	3			1795	523	1	3.5	14.3	1158		1, 3, 16	5	5	4	3	0
Polypodium vulgare sens.lat.	Poly	N		n	-0.03	40		p		hc	Gn	h	Rhiz1		6	3			2496	916	12	3.5	14.4	1133		1	5	5	5	3	0
Polypogon monspeliensis	Poac	N		s	0.60	80		a		Th		h	0		9	1			45	0	0	4.3	16.6	661		6	8	8	7	6	3
Polystichum aculeatum	Dryo	N		n	0.54	60		p		hc		h	0		7	5			1618	314	3	3.2	14.4	1145		1, 16	5	5	7	5	0
Polystichum lonchitis	Dryo	N		n	-0.76	30		p		hc		h	0		4	6			181	20	0	1.4	12.1	1857		7, 15, 16	6	5	7	3	0
Polystichum setiferum	Dryo	N		n	1.47	120		p		hc		h	0		9	2			1249	748	10	4.1	15.0	1032		1	4	5	5	6	0
Populus alba	Sali	AN				2000		p		Ph		w	Root					Eur, As1	1531	116	10	3.6	15.3	867		3, 17, 19	6	6	7	6	0
Populus alba x tremula (P. x canescens)	Sali	AN			0.97	3000		p		Ph		w	Root					Eur	1145	110	7	3.8	15.6	819		1, 3	6	6	6	5	0
Populus nigra sens.lat.	Sali	N		n	0.65	3000		p		Ph		w	Root		7	4			692	66	2	3.6	15.7	800		3, 14	6	8	7	7	0
Populus tremula	Sali	N		n	0.88	2000		p		Ph		w	Root		5	5			2248	414	7	3.3	14.5	1102		1, 16	6	5	5	6	0
Potamogeton acutifolius	Pota	N	VU	r	0.05		100	p		Hy		h	DRa		7	3			35	0	0	4.0	16.4	702		13	7	12	7	6	0
Potamogeton alpinus	Pota	N		n	0.30		280	p		Hy		h	Irreg	DRa	4	6			537	142	1	3.1	14.1	1188		13	7	12	6	5	1
Potamogeton berchtoldii	Pota	N		n	1.66		60	p		Hy		h	DRa		5	6			1461	317	2	3.6	14.7	1027		13, 14	7	12	6	5	0
Potamogeton coloratus	Pota	N		s	0.03		70	p		Hy		h	Irreg	Rhiz2	8	3			142	140	2	4.1	15.1	893		13	7	11	8	5	0
Potamogeton compressus	Pota	N		s	-1.68		90	p		Hy		h	DRa		5	5			134	0	0	3.4	15.9	697		13	7	12	7	4	0
Potamogeton crispus	Pota	N		n			150	p		Hy		h	Rhiz2	DRa	8	5			1541	358	8	3.7	15.2	893		13, 14	7	12	7	6	1
Potamogeton epihydrus	Pota	N	VU	r	0.11		190	p		Hy		h	Irreg	DRa	5	0			2	0	0	4.5	13.0	1288		13	8	12	5	1	0
Potamogeton filiformis	Pota	N		s	0.63		30	p		Hy		h	Rhiz2	DRg	4	6			161	63	0	3.6	13.3	1109		13	7	12	7	5	1
Potamogeton friesii	Pota	N		s	-1.06		150	p		Hy		h	DRa		5	6			270	43	0	3.6	15.4	782		13	7	12	7	5	0
Potamogeton gramineus	Pota	N		n	0.67		80	p		Hy		h	Irreg	Rhiz2	5	6			473	163	0	3.3	13.8	1170		13, 14	7	12	6	3	0
Potamogeton gramineus x lucens (P. x zizii)	Pota	NH		s			120	p		Hy		h	Irreg	Rhiz2					100	92	0	3.5	14.3	1138		13, 14	7	12	6	4	0
Potamogeton gramineus x perfoliatus (P. x nitens)	Pota	NH		n			250	p		Hy		h	Irreg	Rhiz2					216	113	0	3.5	13.6	1257		14	7	12	6	5	1
Potamogeton lucens	Pota	N		n	0.25		250	p		Hy		h	Irreg	Rhiz2	7	4			456	171	1	3.7	15.5	832		13, 14	7	12	6	6	0
Potamogeton natans	Pota	N		n			100	p		Hy		h	Irreg	Rhiz2	5	6			2340	648	6	3.5	14.5	1091		11, 13, 14	7	11	6	4	0
Potamogeton nodosus	Pota	N		r	-0.18		250	p		Hy		h	Irreg	Rhiz2	8	6			15	0	0	3.9	16.4	761		14	6	12	8	5	0
Potamogeton obtusifolius	Pota	N		n	0.96		190	p		Hy		h	DRa		5	6			601	155	0	3.4	14.7	994		13	7	12	6	5	0
Potamogeton pectinatus	Pota	N		n			230	p		Hy		h	Rhiz2	DRg	6	6			1165	242	4	3.8	15.3	844		13, 14	6	12	7	7	2
Potamogeton perfoliatus	Pota	N		n			300	p		Hy		h	Irreg	Rhiz2	5	6			1056	275	0	3.5	14.6	1026		13, 14	7	12	6	5	1
Potamogeton polygonifolius	Pota	N		n		10	70	p		Hy	hc	h	Irreg	Rhiz2	7	2			1841	582	5	3.3	13.9	1254		11, 12, 13	8	10	4	2	0
Potamogeton praelongus	Pota	N		n	-0.26		300	p		Hy		h	Irreg	Rhiz2	4	6			252	90	0	3.2	14.1	1178		13	7	12	7	5	1
Potamogeton pusillus	Pota	N		n	0.77		70	p		Hy		h	DRa		8	6			806	146	1	3.6	15.1	877		13	7	12	7	6	1
Potamogeton rutilus	Pota	N		r	0.18		45	p		Hy		h	DRa		4	3			13	0	0	3.8	12.9	1115		13, 14	7	12	7	5	0
Potamogeton trichoides	Pota	N		n	0.57		100	p		Hy		h	DRa		8	4			185	0	1	3.8	16.2	739		13, 14	6	12	7	6	0
Potentilla anglica	Rosa	N		n	0.11	25		p		hc		h	Stol2		7	3			1248	733	4	4.0	15.0	1045		6	7	5	5	5	0
Potentilla anserina	Rosa	N		n	-0.23	25		p		hc		h	Stol2		5	6			2662	973	12	3.6	14.6	1083		6	8	7	7	6	2
Potentilla argentea	Rosa	N		n	-0.78	30		p		hc		h	0		7	4			323	0	5	3.6	16.0	704		3, 8	8	3	5	2	0
Potentilla crantzii	Rosa	N		s	-0.21	20		p		hc		h	0		2	4			98	0	0	0.7	12.0	1855		7, 16	8	5	8	2	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Potentilla erecta	Rosa	N		n	-0.50	25		p		hc		h	0		5	4			2700	947	12	3.5	14.4	1118		8	7	7	3	2	0
Potentilla fruticosa	Rosa	N		r	1.44	100		p		Pn		w	0		4	6			8	7	0	2.8	13.7	1366		16	8	6	8	2	0
Potentilla neumanniana	Rosa	N		s	-0.17	10		p		hc		h	0		7	3			128	0	0	3.1	14.7	994		7, 16	7	3	8	1	0
Potentilla palustris	Rosa	N		n	-0.21	50		p		Gn	Hy	h	Rhiz2		5	6			1672	721	1	3.4	14.0	1186		11	8	9	5	3	0
Potentilla reptans	Rosa	N		n	-0.62	30		p		hc		h	Stol2		8	4			1882	769	11	3.8	15.1	959		6	7	5	7	5	0
Potentilla rupestris	Rosa	N	VU	r		60		p		hc		h	0		9	3			4	0	0	3.0	13.8	934		16	7	4	6	2	0
Potentilla sterilis	Rosa	N		n	-0.30	15		p		hc		h	Stol1		7	2			2167	742	8	3.6	14.7	1071		1	5	5	5	5	0
Primula elatior	Prim	N		s	0.01	20		p		hc		h	0		7	3	c		38	0	0	3.3	16.3	591		1	4	5	7	6	0
Primula farinosa	Prim	N		s	-0.46	5		p		hc		h	0		4	5			103	0	0	2.2	13.8	1194		7, 11	9	8	9	2	0
Primula scotica	Prim	NE		s	-0.18	5		p		hc		h	0		4	1			42	0	0	3.6	12.4	1026	Co	6, 19	9	4	7	2	1
Primula veris	Prim	N		n	-0.32	15		p		hc		h	0		7	4			1632	369	6	3.7	15.2	900		6, 7	7	4	7	3	0
Primula vulgaris	Prim	N		n	0.16	15		p		hc		h	0		7	3			2651	934	11	3.5	14.5	1108		1, 16	5	5	6	4	0
Prunella vulgaris	Lami	N		n	0.60	30		p		hc		h	Node1		6	6			2783	970	14	3.5	14.4	1106		6, 7	7	5	6	4	0
Prunus avium	Rosa	N		n	1.29	2500		p		Ph		w	Root		7	3			2136	431	7	3.4	14.8	1024		1	4	5	6	6	0
Prunus cerasifera	Rosa	AN			3.43	800		p		Ph		w	0					Eur, As1	900	11	4	3.7	15.8	803		1, 3, 17	6	5	7	6	0
Prunus cerasus	Rosa	AR			-0.90	800		p		Ph		w	Root					Eur	706	339	7	3.9	15.2	961		1, 3	6	5	6	5	0
Prunus domestica	Rosa	AR			2.19	800		p		Ph		w	Root					Eur	1656	406	8	3.7	15.2	928		3, 17	7	5	7	6	0
Prunus laurocerasus	Rosa	AN			4.70	600		p		Ph		w	0					Eur	1253	345	4	3.8	15.3	953		1, 17	4	6	5	6	0
Prunus lusitanica	Rosa	AN				800		p		Ph		w	0					Eur	468	31	1	3.8	15.5	876		1, 17	6	5	7	6	0
Prunus padus	Rosa	N		n	0.58	1500		p		Ph		w	0		5	5			1089	189	0	2.7	13.8	1240		1	5	6	6	7	0
Prunus spinosa	Rosa	N		n	0.40	400		p		Ph		w	Root		7	3			2308	917	9	3.7	14.8	1032		3	6	5	7	6	1
Pseudofumaria lutea	Fuma	AN			0.59	30		p		hc		h	0					Eur	1425	39	6	3.6	15.4	876		3, 17	6	6	8	5	0
Pseudorchis albida	Orch	N		n	-0.88	20		p		Gn		h	0		4	3			385	110	0	2.6	13.0	1534		7, 8	8	5	6	2	0
Pseudotsuga menziesii	Pina	AN				5800		p		Ph		w	0					Am4	900	13	0	3.4	15.0	1035		1, 2, 17	6	6	4	4	0
Pteridium aquilinum	Denn	N		n	-0.71	150		p		Gn		h	Rhiz2		7	6			2685	964	14	3.5	14.5	1109		1, 9	6	5	3	3	0
Puccinellia distans	Poac	N		n	3.02	60		p		hc		h	0		5	4			405	39	2	4.1	14.9	859		3, 21	8	8	7	7	4
Puccinellia fasciculata	Poac	N		s	-0.51	50		p		hc		h	0		8	2			97	11	0	4.5	16.4	722		6	8	7	7	7	4
Puccinellia maritima	Poac	N		n	-0.27	80		p		hc		h	Node2		5	1			788	201	3	4.1	14.4	1162	Co	21	9	8	7	6	5
Puccinellia rupestris	Poac	N		s	-0.40	40		a	b	Th	hc	h	0		8	1			148	0	4	4.5	16.2	756	Co	6, 19	9	7	7	5	5
Pulicaria dysenterica	Aste	N		n	-0.08	80		p		hc		h	Rhiz2		8	4			1497	391	14	4.0	15.5	885		6, 11	7	7	7	4	0
Pulicaria vulgaris	Aste	N	VU	r	-0.55	45		a		Th		h	0		7	4			121	0	5	4.0	16.5	696		8	9	8	6	7	0
Pulmonaria longifolia	Bora	N		s	-0.01	40		p		hc		h	0		7	1			21	0	0	4.7	16.5	810		1, 3	6	4	6	5	0
Pulmonaria obscura	Bora	N	VU	r		30		p		hc		h	0		7	3	c		1	0	0	3.2	16.1	577		1	4	6	8	7	0
Pulmonaria officinalis	Bora	AN			1.77	30		p		hc		h	0		7	3	c	Eur	682	8	0	3.4	15.3	922		1, 3, 17	5	5	8	6	0
Pulsatilla vulgaris	Ranu	N		s	-0.50	30		p		hc		h	0		7	3	c		69	0	0	3.3	16.0	664		7	7	3	8	3	0
Pyrola media	Pyro	N		s	-1.09	10		p		hc		h	Rhiz1		4	4			258	47	0	2.2	13.0	1197		2, 10	5	4	5	2	0
Pyrola minor	Pyro	N		n	-0.55	7		p		hc	Ch	h	Rhiz1		4	6			558	50	0	2.6	13.9	1089		1, 16	5	5	4	2	0
Pyrola rotundifolia	Pyro	N		s	-0.08	12		p		hc		h	Rhiz1		5	4			155	13	2	2.9	14.2	1072		2, 19	6	7	7	3	0
Pyrus communis sens.lat.	Rosa	AR			1.49	1500		p		Ph		w	Root					Eur?, As1?	781	6	8	3.8	15.9	801		1, 3, 17	7	5	6	7	0
Pyrus communis sens.str.	Rosa	AR				1500		p		Ph		w	Root					Gard								3, 17	7	5	6	7	0
Pyrus cordata	Rosa	NA	EN	r		400		p		Ph		w	Root		7	1			9	0	0	5.4	15.9	1129		3	6	5	5	4	0
Quercus cerris	Faga	AN			2.32	3500		p		Ph		w	0					Eur	1247	42	10	3.8	15.6	862		1, 3, 17	6	4	6	6	0
Quercus ilex	Faga	AN			2.37	2500		p		Ph		w	0		9	1		Eur	802	22	14	4.1	15.9	824		1, 17, 19	6	3	7	4	1
Quercus petraea	Faga	N		n	0.14	3000		p		Ph		w	0		7	3			1832	549	0	3.5	14.6	1136		1	6	6	3	4	0
Quercus robur	Faga	N		n	-0.60	3000		p		Ph		w	0		7	3			2310	663	12	3.5	14.7	1049		1, 3	7	5	5	4	0
Radiola linoides	Lina	N		n	-0.87	6		a		Th		h	0		7	3			548	115	11	4.2	14.7	1061		10	8	7	4	2	1

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	Cl	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Ranunculus acris	Ranu	N		n	0.30	75		p		hc		h	0		3	5			2780	968	13	3.5	14.4	1106		6	7	6	6	4	0
Ranunculus aquatilis	Ranu	N		n			90	a		Hz		h	0	Irreg	7	3			1123	157	4	3.6	15.2	860		13, 14	7	11	7	5	0
Ranunculus aquatilis sens.lat.	Ranu	N		n	-1.37		90	a		Hz		h	0	Irreg	6	3			1830	430	6	3.6	15.3	860		13, 14	7	11	7	5	0
Ranunculus arvensis	Ranu	AR			-3.77	60		a		Th		h	0		8	4			824	2	3	3.7	15.9	742		4	7	5	7	6	0
Ranunculus auricomus	Ranu	N		n	-0.33	40		p		hc		h	0		5	3			1379	226	1	3.3	15.1	922		1	6	7	6	5	0
Ranunculus baudotii	Ranu	N		n	-0.04		60	a		Hz		h	0	Node2	8	3			361	61	5	4.4	15.3	905		13	7	11	7	6	4
Ranunculus bulbosus	Ranu	N		n	-0.48	40		p		hc		h	0		8	3			2259	616	14	3.6	14.8	1004		6, 7	7	4	7	4	0
Ranunculus circinatus	Ranu	N		n	-0.34		75	p		Hy		h	Irreg		7	5			575	76	0	3.7	15.8	753		13, 14	7	12	7	7	0
Ranunculus ficaria	Ranu	N		n	0.16	25		p		Gn		h	0tb	DRa	8	3			2648	820	14	3.6	14.5	1084		1, 3	6	6	6	6	0
Ranunculus flammula	Ranu	N		n	-0.60	50		p		hc	Hy	h	Node1		7	3			2651	938	11	3.5	14.4	1122		11	7	9	5	3	0
Ranunculus fluitans	Ranu	N		n	1.96		300	p		Hy		h	Irreg	Node2	7	3			373	3	0	3.3	15.4	798		14	7	12	7	6	0
Ranunculus hederaceus	Ranu	N		n	0.10	9	23	a	p	Hz	Hy	h	0	Node2	8	2			1703	551	8	3.6	14.5	1093		11, 13	7	10	5	5	0
Ranunculus lingua	Ranu	N		n	1.70	120		p		hc	Hy	h	Rhiz2		7	4			537	210	0	3.7	15.2	868		11	7	10	6	7	0
Ranunculus muricatus	Ranu	AN				40		a		Th		h	0		0	3		Eur	18	1	0	5.0	15.6	864		4	7	4	5	5	0
Ranunculus omiophyllus	Ranu	N		n	0.52	9	25	a	p	Hz	Hy	h	0	Node2	8	2			813	151	1	3.7	14.7	1180		11	7	10	5	4	0
Ranunculus ophioglossifolius	Ranu	N	EN	r		40		a		Th		h	0		8	3			4	0	2	4.9	16.5	824		13	7	8	7	5	0
Ranunculus paludosus	Ranu	N		o		40		p		hc		h	Rhiz1		9	1			0	0	4	6.1	16.9	843		6	8	7	6	3	0
Ranunculus parviflorus	Ranu	N		n	-0.08	40		a		Th		h	0		8	2			497	0	11	4.3	16.0	834		6	7	5	6	5	0
Ranunculus peltatus	Ranu	N		n			90	a		Hz		h	0	Irreg	6	3			990	151	5	3.5	15.2	908		11, 13, 14	7	11	5	6	0
Ranunculus penicillatus	Ranu	N		n			180	p		Hy		h	Irreg		7	3			706	284	0	3.8	15.2	942		14	7	12	8	5	0
Ranunculus repens	Ranu	N		n	0.55	60		p		hc		h	Stol2		5	5			2784	983	14	3.5	14.5	1105		3, 6	6	7	6	7	0
Ranunculus reptans	Ranu	N	EN	r		10		p		hc	Hy	h	Stol2		4	6			9	0	0	2.6	13.7	1467		13	8	9	6	2	0
Ranunculus sardous	Ranu	NA		n	0.24	45		a		Th		h	0		7	3			544	0	12	4.1	15.9	800		3, 6, 13	8	7	6	7	2
Ranunculus sceleratus	Ranu	N		n	-0.05	60		a		Th		h	0		5	6			1492	353	6	3.8	15.4	861		11, 13, 14	8	8	8	8	2
Ranunculus trichophyllus	Ranu	N		n	-0.07		60	a		Hz		h	0	Irreg	3	6			1121	259	6	3.7	15.2	861		11, 13	7	12	6	6	0
Ranunculus tripartitus	Ranu	N	VU	s	-1.09	9	25	a	p	Hz		h	0		8	1			79	1	0	5.2	15.8	1024		13	9	10	6	3	0
Raphanus raphanistrum	Bras	N		n	-1.39	70		a	p	Th	hc	h	0		8	3			1862	259	13	4.6	15.0	1079		4, 19	7	5	6	6	0
Raphanus raphanistrum subsp.maritimus	Bras	N		n		80		b	p	hc		h	0		9	1			325	108	13	4.7	15.1	1093		19	7	4	7	5	3
Raphanus raphanistrum subsp.raphanistrum	Bras	AR				60		b	p	hc		h	0		8	3			1797	237	8	3.6	15.0	941		4	7	5	6	6	0
Reseda lutea	Rese	NA		n	0.39	75		p		hc		h	0		8	3			1276	0	7	3.6	15.7	808		3	7	4	7	5	0
Reseda luteola	Rese	AR			0.69	150		b		hc		h	0		8	4			1660	428	12	3.8	15.3	879		3, 17	7	4	8	6	0
Rhamnus cathartica	Rham	N		n	-0.04	600		p		Ph		w	0		7	4			857	88	0	3.6	15.8	783		1, 3	7	5	7	6	0
Rhinanthus angustifolius	Scro	AN			-0.10	60		a		Th		h	0		5	4		Eur, As1	90	0	0	3.1	14.6	809		3, 4, 7	7	6	7	2	0
Rhinanthus minor	Scro	N		n	-0.49	50		a		Th		h	0		5	3			2629	850	6	3.5	14.4	1115		6	7	5	6	4	0
Rhododendron ponticum	Eric	AN			1.83	500		p		Ph		w	0	Node1				Eur	1966	507	6	3.5	14.6	1111		1, 10, 16	5	5	3	3	0
Rhynchospora alba	Cype	N		n	-0.43	30		p		hc		h	Rhiz1		5	6			624	407	0	3.6	14.0	1400		12	8	9	2	1	0
Rhynchospora fusca	Cype	N		s	0.02	30		p		hc		h	Rhiz2		5	2			46	94	0	4.4	14.7	1205		12	9	9	3	1	0
Ribes alpinum	Gros	N		s	0.45	200		p		Pn	Ph	w	0		4	3			50	0	0	2.3	14.2	1084		1, 3, 16	5	5	8	6	0
Ribes nigrum	Gros	AN			1.76	200		p		Pn		w	0		5	4		Eur, As1	1749	213	2	3.4	14.9	995		1, 3, 14	5	9	6	6	0
Ribes rubrum	Gros	NA		n	1.79	200		p		Pn		w	0		7	2			1874	0	2	3.3	15.1	944		1	5	7	7	6	0
Ribes spicatum	Gros	N		s	-0.12	200		p		Pn		w	0		5	3	c		118	0	0	2.0	13.2	1095		1, 16	4	6	7	6	0
Ribes uva-crispa	Gros	AN			0.72	100		p		Pn		w	0		7	3		Eur	2130	312	4	3.4	14.8	1006		1, 3	5	5	7	6	0
Robinia pseudoacacia	Faba	AN				2700		p		Ph		w	Root					Am6	566	1	4	3.7	16.0	748		3, 17	7	4	6	6	0
Romulea columnae	Irid	N	VU	r		6		p		Gn		h	0tb		9	1			2	0	14	6.2	16.5	842	Co	18, 19	9	4	5	2	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Rorippa amphibia	Bras	N		n	0.03	120		p		Hy	hc	h	Node1		7	5			562	179	0	3.7	15.7	772		11, 13, 14	8	10	7	8	0
Rorippa islandica	Bras	N		s		30		a		Th		h	0		4	4			41	29	0	4.0	14.1	1266		13	8	8	7	6	0
Rorippa microphylla	Bras	N		n		30	60	p		Hy	Ch	h	Node2		?	?			1135	398	4	3.7	15.0	932		13, 14	7	10	7	6	0
Rorippa nasturtium-aquaticum	Bras	N		n		30	60	p		Hy	Ch	h	Node2		8	4			1678	581	4	3.9	15.0	988		13, 14	7	10	7	7	0
Rorippa nasturtium-aquaticum agg.	Bras	N		n	-0.56	30	60	p		Hy	Ch	h	Node2		8	4			2317	888	10	3.7	14.8	1027		11, 13, 14	7	10	7	7	0
Rorippa palustris	Bras	N		n	0.44	60		a		Th		h	0		5	6			1353	332	7	3.6	15.2	914		11, 13	8	8	7	7	0
Rorippa sylvestris	Bras	N		n	0.73	60		p		hc		h	Rhiz1		7	3			1129	107	7	3.6	15.4	886		11, 14	8	8	7	7	0
Rosa agrestis	Rosa	N		s		150		p		Pn		w	0		7	3			55	39	0	4.1	15.6	836		7	8	3	8	3	0
Rosa arvensis	Rosa	N		n	-0.17	150		p		Pn		w	0		7	3			1471	385	0	3.9	15.4	910		3	6	4	7	5	0
Rosa caesia	Rosa	N		n		200		p		Pn	Ph	w	0		7	3			729	23	0	2.8	13.8	1151		1, 3	8	3	7	3	0
Rosa canina agg.	Rosa	N		n		300		p		Pn	Ph	w	0		7	3			2576	856	12	3.7	15.1	993		1, 3	6	5	7	6	0
Rosa canina sens.str.	Rosa	N		n		300		p		Pn	Ph	w	0		7	3			1540	285	2	3.7	15.1	993		1, 3	6	5	7	6	0
Rosa micrantha	Rosa	N		n		300		p		Pn		w	0		7	3			394	56	5	4.2	15.9	872		1, 3, 7	6	3	7	3	0
Rosa mollis	Rosa	N		n		150		p		Pn		w	Root		5	3			435	12	0	2.5	13.6	1138		1, 3, 16	5	5	7	4	0
Rosa mollis agg.	Rosa	N		n		150		p		Pn		w	0		5	3			1894	538	1	3.4	14.1	1189		1, 3, 16	5	5	7	4	0
Rosa obtusifolia	Rosa	N		s		200		p		Pn	Ph	w	0		7	3			193	2	0	3.6	16.1	728		1, 3	7	4	8	4	0
Rosa pimpinellifolia	Rosa	N		n	-0.05	50		p		Ch	Pn	w	Root		7	5			924	308	10	3.8	14.4	1124		10, 16, 19	8	3	6	3	0
Rosa rubiginosa	Rosa	N		n		200		p		Pn		w	0		7	3			360	55	1	3.6	15.1	845		3, 7	7	3	8	3	0
Rosa rubiginosa agg.	Rosa	N		n		200		p		Pn		w	0		7	3			1065	242	8	3.6	15.2	850		3, 7	7	3	8	3	0
Rosa rugosa	Rosa	AN				150		p		Pn		w	0					As2	875	65	7	3.8	15.0	967		3, 18, 19	8	3	6	3	0
Rosa sherardii	Rosa	N		n		150		p		Pn		w	0		7	3			1121	362	0	3.4	14.2	1188		1, 3, 16	6	5	6	4	0
Rosa stylosa	Rosa	N		n		300		p		Pn	Ph	w	0		7	3			286	25	1	4.3	16.1	847		1, 3	7	4	8	4	0
Rosa tomentosa	Rosa	N		n		300		p		Pn		w	0		7	3			414	30	1	3.7	15.8	842		1, 3	7	4	7	4	0
Rubia peregrina	Rubi	N		n	0.17	90		p		hc	Pn	sw	Rhiz2		9	1			240	79	7	5.2	15.7	1031		1	6	4	8	5	0
Rubus arcticus	Rosa	N	EX	x		30		p		hc		h	Rhiz2		4	6			4	0	0	0.6	11.2	1782		10	7	5	7	4	0
Rubus caesius	Rosa	N		n	-0.34	50		p		Ch	Pn	w	Tip		7	4			1339	166	5	3.8	15.6	851		3	7	7	7	6	0
Rubus chamaemorus	Rosa	N		n	-0.47	20		p		hc		h	Rhiz2		4	6			394	1	0	1.1	12.2	1594		10, 12	9	7	1	1	0
Rubus fruticosus agg.	Rosa	N		n	-0.29	200		p		Pn		w	Tip		8	3			2564	974	14	3.6	14.6	1089		1, 3	6	6	6	6	0
Rubus idaeus	Rosa	N		n	-0.09	150		p		Pn		w	Root		5	6			2425	648	2	3.4	14.5	1095		1	6	5	5	5	0
Rubus saxatilis	Rosa	N		n	-0.27	40		p		hc		h	Stol2		5	5			793	132	0	2.4	13.0	1514		1, 7, 16	7	5	7	4	0
Rubus spectabilis	Rosa	AN				200		p		Pn		w	Tip					Am4	210	153	0	3.4	13.8	1162		1, 3	6	6	5	5	0
Rumex acetosa	Poly	N		n	1.32	60		p		hc		h	0		5	4			2790	979	14	3.5	14.4	1105		6	7	5	5	4	0
Rumex acetosella	Poly	N		n	-0.62	30		p		hc		h	Root		6	4			2743	865	14	3.5	14.4	1110		8, 9, 16	7	5	4	3	0
Rumex aquaticus	Poly	N	VU	r		180		p		hc	Hy	h	0		5	6	c		3	0	0	2.7	13.8	1795		11, 13, 14	7	9	7	7	0
Rumex conglomeratus	Poly	N		n	0.20	60		p		hc		h	0		8	4			1768	702	12	3.9	15.2	953		11, 14	8	8	7	7	0
Rumex crispus	Poly	N		n	0.11	100		p		hc		h	0		8	4			2724	958	14	3.6	14.5	1087		3, 6, 19	8	6	7	6	2
Rumex hydrolapathum	Poly	N		n	-0.13	200		p		hc	Hy	h	0		7	3			958	191	6	3.9	15.7	812		11	7	10	7	6	0
Rumex longifolius	Poly	N		n	0.93	120		p		hc		h	0		4	5			590	0	0	2.3	13.0	1174		3, 13	7	6	7	7	0
Rumex maritimus	Poly	N		n	0.42	40		a	p	Th	hc	h	0		7	6			398	17	3	3.7	15.9	709		13, 14	8	9	7	7	0
Rumex obtusifolius	Poly	N		n	0.66	100		p		hc		h	0		7	3			2746	973	14	3.6	14.5	1100		3, 5, 17	7	5	7	9	0
Rumex palustris	Poly	N		n	0.31	60		p		hc		h	0		7	3			235	0	0	3.6	16.2	637		13	7	8	7	8	0
Rumex pseudoalpinus	Poly	AR			-0.42	70		p		hc		h	0					Eur	184	1	0	2.4	13.7	1052		3, 17	7	6	7	9	0
Rumex pulcher	Poly	N		n	0.24	40		p		hc		h	0		8	3			508	0	14	4.2	16.3	772		3, 5, 6	7	6	7	7	0
Rumex rupestris	Poly	N	EN	s	-0.28	50		p		hc		h	0		7	0			40	0	11	6.1	16.1	1000	Co	18, 19	7	8	5	5	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Rumex sanguineus	Poly	N		n	0.66	60		p		hc		h	0		7	3			2026	749	11	3.8	15.0	1003		1	5	7	7	7	0
Ruppia cirrhosa	Rupp	N		s	-0.41		60	p		Hy		h	Irreg	Rhiz2	6	6			121	22	1	4.4	15.5	841	Co	21	7	12	7	5	4
Ruppia maritima	Rupp	N		n	-0.34		40	p		Hy		h	Irreg	Rhiz2	6	6			363	80	3	4.3	14.8	1063	Co	21	9	11	8	8	4
Ruscus aculeatus	Lili	N		n	0.74	77		p		Pn		w	Rhiz1		9	2			238	0	12	4.3	16.4	782		1, 3	4	5	4	4	0
Sagina apetala	Cary	N		n	0.25	15		a		Th		h	0		8	3			2020	646	12	3.7	14.9	989		17	9	4	6	3	0
Sagina maritima	Cary	N		n	-0.08	15		a		Th		h	0		8	3			635	138	10	4.4	14.5	1072	Co	18, 19	9	7	7	4	4
Sagina nivalis	Cary	N	VU	r		3		p		Ch		h	0		1	6			4	0	0	-0.2	11.4	2256		15	8	7	8	1	0
Sagina nodosa	Cary	N		n	-1.14	15		p		Ch	hc	h	0		5	4			1148	482	6	3.6	14.3	1089		11, 19	8	7	7	3	1
Sagina procumbens	Cary	N		n	1.28	20		p		hc		h	0	Node1	5	4			2788	951	14	3.5	14.4	1106		6, 16, 17	7	6	6	5	1
Sagina saginoides	Cary	N		s	-0.77	10		p		Ch		h	0		1	6			55	0	0	0.2	11.2	1851		7, 15	8	7	6	2	0
Sagina subulata	Cary	N		n	-0.44	10		p		Ch		h	0		7	3			654	49	11	3.7	13.9	1291		8, 10	8	6	6	4	0
Sagittaria sagittifolia	Alis	N		n	-0.44		95	p		Hy		h	DRg		5	4			640	114	0	3.7	15.8	747		13, 14	7	11	7	6	0
Salicornia	Chen	N		n	-0.82	36		a		Th		h	0		6	6			511	144	6	4.3	14.9	1107	Co	21	9	7	8	6	8
Salicornia dolichostachya	Chen	N		n		45		a		Th		h	0		5	3			154	21	0	4.3	15.7	854	Co	21	9	8	8	6	9
Salicornia europaea	Chen	N		n		35		a		Th		h	0		6	6			241	77	1	4.5	15.2	1038	Co	21	9	8	8	6	9
Salicornia europaea agg.	Chen	N		n		38		a		Th		h	0		6	6			340	96	5	4.5	15.2	1038		21	9	8	8	6	9
Salicornia fragilis	Chen	N		s		40		a		Th		h	0		7	1			98	35	0	4.5	15.7	884	Co	21	9	8	8	6	9
Salicornia nitens	Chen	N		r		25		a		Th		h	0		8	1			23	1	0	4.2	15.7	821	Co	21	9	7	8	6	9
Salicornia obscura	Chen	N		r		40		a		Th		h	0		7	1			13	0	0	4.1	16.4	712	Co	21	9	8	8	6	9
Salicornia procumbens agg.	Chen	N		n		35		a		Th		h	0		5	3			175	42	0	4.3	15.7	854		21	9	8	8	6	9
Salicornia pusilla	Chen	N		s	-0.21	25		a		Th		h	0		7	1			84	11	0	4.6	16.2	791	Co	21	9	6	8	6	5
Salicornia ramosissima	Chen	N		n		40		a		Th		h	0		8	2			224	16	2	4.4	15.7	862	Co	21	9	7	8	5	9
Salix alba	Sali	AR			0.02	2500		p		Ph		w	0		8	4			1770	568	8	3.7	15.1	938		14	6	7	8	8	0
Salix arbuscula	Sali	N		s	-0.12	70		p		Pn		w	0		1	3			48	0	0	0.0	11.5	1965		15, 16	8	5	7	2	0
Salix aurita	Sali	N		n	-0.01	250		p		Pn		w	0		5	3			2096	850	1	3.4	14.2	1190		1, 16	7	8	4	3	0
Salix caprea	Sali	N		n	0.34	1000		p		Ph		w	0		5	5			2412	620	3	3.4	14.6	1080		1	7	7	7	7	0
Salix cinerea	Sali	N		n	0.84	800		p		Ph		w	0		5	4			2590	934	12	3.5	14.5	1096		1, 11	7	8	6	5	0
Salix fragilis	Sali	AR			0.26	1500		p		Ph		w	0		7	4			1980	530	6	3.6	15.0	955		1, 14	6	8	7	7	0
Salix herbacea	Sali	N		n	-0.33	6		p		Ch		w	Rhiz2		1	3			391	68	0	2.2	12.3	1849		15	8	5	3	2	0
Salix lanata	Sali	N	VU	r	0.07	100		p		Pn		w	0		1	6			15	0	0	-0.8	10.8	1723		15	8	6	7	3	0
Salix lapponum	Sali	N		s	-0.73	100		p		Pn		w	0		2	4			101	0	0	0.2	11.3	1956		15	8	6	6	3	0
Salix myrsinifolia	Sali	N		n	0.93	300		p		Pn	Ph	w	0		4	4			276	21	0	1.8	13.0	1253		13, 14, 16	6	8	5	4	0
Salix myrsinites	Sali	N		s	-0.58	40		p		Ch	Pn	w	0		1	3			78	0	0	0.3	11.4	1854		15, 16	8	5	6	2	0
Salix pentandra	Sali	N		n	0.11	700		p		Ph		w	0		5	4			700	305	0	3.0	14.0	1114		1	7	8	6	4	0
Salix phylicifolia	Sali	N		n	-0.14	400		p		Ph	Pn	w	0		2	6			456	7	0	1.7	12.7	1412		14, 16	7	8	5	4	0
Salix purpurea	Sali	N		n	-0.01	300		p		Pn	Ph	w	0		7	4			1189	379	3	3.4	14.8	984		11, 14	8	9	7	5	0
Salix repens	Sali	N		n	-0.42	150		p		Pn		w	Rhiz2		5	4			1624	459	3	3.5	14.0	1205		10, 19	8	7	6	3	0
Salix reticulata	Sali	N		s	-0.17	15		p		Ch		w	Rhiz1		1	6			25	0	0	-0.1	11.3	2081		15, 16	7	6	8	3	0
Salix triandra	Sali	AR			-0.06	1000		p		Ph		w	0		7	5			862	105	4	3.7	15.6	813		11, 13, 14	7	8	7	5	0
Salix viminalis	Sali	AR			0.61	600		p		Ph		w	0		7	5			2194	780	11	3.7	14.8	1030		11, 13, 14	7	8	6	6	0
Salsola kali	Chen	N		n	-0.61	50		a		Th		h	0		8	4			388	109	11	4.5	14.9	1008	Co	19	9	6	7	8	3
Salvia pratensis	Lami	NA		s	-0.75	90		p		hc		h	0		7	3			36	0	1	3.7	16.3	733		3, 7	8	3	8	4	0
Salvia verbenaca	Lami	N		n	-0.51	80		p		hc		h	0		9	1			481	20	12	4.1	16.1	748		3, 7	8	3	7	2	0
Sambucus ebulus	Capr	AR			-0.17	150		p		hc		h	Rhiz2		8	3			533	147	2	3.8	15.3	913		3	7	5	8	7	0
Sambucus nigra	Capr	N		n	-0.75	1000		p		Ph		w	0		7	3			2457	919	14	3.6	14.7	1061		3, 17	6	5	7	7	0
Sambucus racemosa	Capr	AN			0.79	400		p		Ph		w	0		5	6	c	NHem	360	3	0	2.3	13.6	1048		1, 3	6	5	6	7	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Samolus valerandi	Prim	N		n	-0.42	45		p		hc		h	0		8	6			845	411	12	4.3	15.1	1013		11	8	8	8	5	2
Sanguisorba minor	Rosa	N		n	-0.16	50		p		hc		h	0		8	4			1216	84	6	3.7	15.6	844		7	7	4	8	3	0
Sanguisorba officinalis	Rosa	N		n	-0.23	120		p		hc		h	0		5	6			946	12	0	3.2	15.1	938		6	7	7	6	5	0
Sanicula europaea	Apia	N		n	-0.98	40		p		hc		h	0	Rhiz1	7	3			2025	634	0	3.5	14.7	1090		1	4	5	7	5	0
Saponaria officinalis	Cary	AR			0.29	90		p		hc		h	Rhiz2		7	3			1246	256	9	3.9	15.5	890		3, 17	8	5	6	6	0
Sarcocornia perennis	Chen	N		s	-0.22	30		p		Ch		h	0		9	1			80	4	1	4.4	16.4	702	Co	21	9	8	8	6	6
Saussurea alpina	Aste	N		n	-0.51	45		p		hc		h	Stol1		1	5			237	21	0	1.6	11.9	2010		7, 15, 16	8	6	6	3	0
Saxifraga aizoides	Saxi	N		n	-0.61	20		p		Ch		h	Node2		1	3			422	17	0	1.7	12.3	1799		7, 11, 15, 16	8	9	6	2	0
Saxifraga cernua	Saxi	N	VU	r		15		p		hc		h	DRa	DRi	1	6			5	0	0	0.5	11.7	2265		15, 16	6	6	7	1	0
Saxifraga cespitosa	Saxi	N	VU	r	-0.10	10		p		Ch		h	0		1	6			13	0	0	-0.4	10.7	2003		15, 16	7	5	7	1	0
Saxifraga granulata	Saxi	N		n	-0.26	36		p		hc		h	DRa		7	3			975	6	0	3.1	15.1	853		6, 7	8	5	6	4	0
Saxifraga hirculus	Saxi	N	VU	r	-0.30	20		p		hc		h	Rhiz1		2	6			20	16	0	2.4	13.2	1253		11	8	9	6	2	0
Saxifraga hirsuta	Saxi	N		o	1.39	30		p		hc		h	Stol1		7	1			0	36	0	5.0	14.6	1334		1, 15, 16	6	7	5	2	0
Saxifraga hypnoides	Saxi	N		n	-0.54	20		p		Ch		h	Node2		4	1			406	61	0	2.0	12.8	1697		7, 15, 16	7	5	6	3	0
Saxifraga nivalis	Saxi	N		s	-0.50	15		p		hc		h	0		1	6			72	1	0	0.6	11.5	2099		15, 16	6	6	7	3	0
Saxifraga oppositifolia	Saxi	N		n	-0.45	3		p		Ch		h	Node2		1	6			276	22	0	1.8	12.1	1980		7, 15, 16	8	6	8	2	0
Saxifraga rivularis	Saxi	N		r	0.19	10		p		hc		h	Rhiz1	DRa	1	6			21	0	0	-0.3	10.8	1941		11, 15	6	9	5	2	0
Saxifraga rosacea	Saxi	N	EW	x		20		p		Ch		h	0		4	2			2	31	0	4.4	14.3	1312		16	7	4	8	4	0
Saxifraga spathularis	Saxi	N		o		40		p		hc	Ch	h	Stol1		7	0			0	137	0	4.7	14.4	1328		16	6	8	3	2	0
Saxifraga stellaris	Saxi	N		n	-0.58	20		p		hc	Ch	h	0		1	3			440	61	0	1.8	12.3	1811		11, 15, 16	8	8	5	3	0
Saxifraga tridactylites	Saxi	N		n	-0.12	10		a		Th		h	0		8	3			985	316	11	3.9	15.3	921		16	7	2	7	2	0
Scabiosa columbaria	Dips	N		n	-0.71	70		p		hc		h	0		7	3			804	0	0	3.5	15.6	831		7	8	3	8	2	0
Scandix pecten-veneris	Apia	AR			-3.65	50		a		Th		h	0		8	4			780	94	6	3.8	15.7	792		4	7	4	7	4	0
Scheuchzeria palustris	Sche	N	VU	r		22		p		hc		h	Rhiz2		4	6	c		14	1	0	2.2	13.9	1380		12	9	9	3	1	0
Schoenoplectus lacustris	Cype	N		n	0.47		210	p		Hy		h	Rhiz1		6	4			1202	535	0	3.7	14.9	1013		13, 14	8	11	7	6	0
Schoenoplectus pungens	Cype	NA		r		60		p		Hy		h	Rhiz1		7	3			0	0	1	6.1	16.7	869	Co	19	8	10	7	7	1
Schoenoplectus tabernaemontani	Cype	N		n	0.67	150		p		Hy		h	Rhiz1		8	5			702	192	5	4.2	15.3	917		11, 13	9	10	8	7	3
Schoenoplectus triqueter	Cype	N	CR	r		125		p		Hy		h	Rhiz1		7	5			8	3	0	4.7	16.5	799		14	8	10	7	7	3
Schoenus ferrugineus	Cype	N	VU	r		40		p		hc		h	0		4	3			3	0	0	0.4	12.4	1113		11	8	9	7	2	0
Schoenus nigricans	Cype	N		n	-0.53	75		p		hc		h	0		8	4			763	484	4	3.9	13.9	1261		11	8	8	7	2	0
Scilla autumnalis	Lili	N		s	-0.37	20		p		Gb		h	0tb		9	1			49	0	14	5.9	16.2	939	Co	10, 18	9	3	6	1	0
Scilla verna	Lili	N		n	0.12	10		p		Gb		h	0tb	DRg	7	1			310	29	0	4.6	13.9	1103		6, 10	8	5	5	3	3
Scirpoides holoschoenus	Cype	N	VU	r	0.21	100		p		hc		h	0		8	4			3	0	0	5.2	16.3	909	Co	19	8	8	7	6	0
Scirpus sylvaticus	Cype	N		n	0.02	120		p		hc		h	Rhiz1		7	4			871	102	0	3.4	15.2	921		1, 11	6	8	6	6	0
Scleranthus annuus	Cary	N		n	-2.68	20		a		Th		h	0		7	3			983	69	9	3.6	15.2	883		4, 8, 10, 16	7	4	4	4	0
Scleranthus perennis	Cary	N	EN	r	-0.11	20		p		Ch		h	0		7	3			11	0	0	3.3	16.0	656		8, 16	8	3	4	2	0
Scorzonera humilis	Aste	NA	VU	r		50		p		hc		h	0		7	3			4	0	0	4.8	16.1	1097		6	8	7	5	2	0
Scrophularia auriculata	Scro	N		n	-0.21	120		p		hc		h	0		8	2			1490	504	8	3.9	15.4	918		11, 14	7	8	7	7	0
Scrophularia nodosa	Scro	N		n	-0.37	100		p		hc		h	0		7	4			2327	850	6	3.6	14.7	1069		1, 3	5	6	7	6	0
Scrophularia scorodonia	Scro	AN			0.75	100		p		hc		h	0		8	1		Eur	68	0	10	5.8	16.0	1033		3, 16, 18	7	4	6	6	0
Scrophularia umbrosa	Scro	N		n	0.72	100		p		hc		h	0		7	4	c		196	14	0	3.1	14.9	868		1, 14	7	9	7	7	0
Scrophularia vernalis	Scro	AN			0.54	65		b	p	hc		h	0					Eur	192	0	0	3.3	15.3	769		1, 3	5	5	7	7	0
Scutellaria galericulata	Lami	N		n	-0.39	50		p		hc		h	Rhiz1		5	4			1751	212	4	3.6	14.9	1055		11	7	8	6	5	0
Scutellaria minor	Lami	N		n	0.03	20		p		hc		h	Rhiz1		8	2			803	136	4	4.1	14.9	1191		11	7	9	4	2	0
Secale cereale	Poac	AC				150		a		Th		h	0					Eur	134	7	0	4.0	15.8	852		3, 4	8	5	7	7	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Sedum acre	Cras	N		n	-0.24	10		p		Ch		h	Node2	Irreg	7	3			2108	504	12	3.7	14.9	995		16	8	2	7	2	1
Sedum album	Cras	AR			2.41	20		p		Ch		h	Node2	Irreg	9	2			1603	517	13	3.8	15.1	948		3, 16, 17	8	3	6	2	0
Sedum anglicum	Cras	N		n	-0.21	5		p		Ch		h	Node2	Irreg	7	1			988	393	14	4.1	14.3	1321		16, 18	8	3	4	2	1
Sedum forsterianum	Cras	N		s	1.54	20		p		Ch		h	Node2	Irreg	8	1			122	0	0	3.6	14.8	1239		3, 16	7	3	5	1	0
Sedum rosea	Cras	N		n	-0.41	35		p		hc		h	0		1	6			524	82	0	2.7	12.6	1728		15, 16	7	6	6	3	0
Sedum rupestre	Cras	AN			2.20	30		p		Ch		h	Node2	Irreg				Eur	1212	70	4	3.7	15.5	905		3, 16	7	2	5	4	0
Sedum telephium	Cras	N		n	-0.34	60		p		hc		h	0		7	5			1197	0	0	3.5	15.0	1032		1, 3, 16	7	5	7	5	1
Sedum villosum	Cras	N		s	-0.76	10		p		Ch		h	0		2	3			211	0	0	1.6	12.9	1273		11	8	9	6	2	0
Selaginella selaginoides	Sela	N		n	-0.47	9		p		Ch		h	Node1		4	6			988	288	0	2.8	13.0	1443		7, 11	8	7	6	2	0
Selinum carvifolia	Apia	N	VU	r		100		p		hc		h	0		7	3			3	0	0	3.4	16.1	595		11	7	7	8	4	0
Sempervivum tectorum	Cras	AN				40		p		Ch		h	Stol1					Eur	500	42	2	3.5	15.3	871		3, 17	8	2	4	1	0
Senecio aquaticus	Aste	N		n	-0.92	80		b	p	hc		h	0		7	3			2304	919	1	3.6	14.5	1109		11, 14	7	8	6	5	0
Senecio cambrensis	Aste	NE		r		30		p		hc		h	0		7	1			14	0	0	3.6	15.0	804		3, 17	8	5	7	7	0
Senecio cineraria	Aste	AN			2.73	60		p		Ch	Pn	sw	0		0	3		Eur	256	8	5	4.4	15.9	837		3, 17, 18, 19	9	3	7	3	3
Senecio erucifolius	Aste	N		n	-0.03	120		p		hc		h	Rhiz1		7	4			1276	30	0	3.8	15.8	783		3, 6	7	5	7	5	0
Senecio fluviatilis	Aste	AN			0.03	150		p		hc		h	Rhiz2		7	4		Eur, As1	184	25	0	3.3	14.6	1018		1, 11, 13, 14	7	8	6	7	0
Senecio jacobaea	Aste	N		n	0.11	125		p	b	hc		h	0	Root	7	4			2725	982	14	3.6	14.5	1102		3, 6, 7, 8	7	4	6	4	0
Senecio paludosus	Aste	N	CR	r		175		p		hc		h	0		7	4	c		7	0	0	3.4	16.2	573		11, 13	7	9	7	6	0
Senecio smithii	Aste	AN				100		p		hc		h	0					SAm	62	0	0	3.4	12.3	1072		3, 6	8	7	6	7	0
Senecio squalidus	Aste	AN			0.77	50		a	p	Th	Ch	h	0					Gard	1494	75	4	3.7	15.5	850		3, 17	8	4	7	7	0
Senecio sylvaticus	Aste	N		n	0.09	70		a		Th		h	0		7	3			1853	238	12	3.6	14.9	987		2, 8, 9	7	5	5	6	0
Senecio viscosus	Aste	AN			0.63	60		a		Th		h	0		7	3		Eur	1747	69	1	3.4	15.1	920		3, 17, 19	8	5	7	6	1
Senecio vulgaris	Aste	N		n	-1.08	37		a		Th		h	0		8	3			2630	942	14	3.6	14.6	1075		3, 4, 17	7	5	7	7	0
Serapias parviflora	Orch	NA		r		30		p		Gn		h	0		9	1			1	0	0	6.0	16.2	1048		6	8	4	7	3	0
Seriphidium maritimum	Aste	N		n	-0.42	50		p		Ch	hc	h	Rhiz2		7	2			222	20	1	4.3	15.8	783	Co	21	9	7	8	6	5
Serratula tinctoria	Aste	N		n	-0.21	70		p		hc		h	0		7	3			945	0	2	3.8	15.5	965		7	7	6	6	2	0
Seseli libanotis	Apia	N	VU	r		60		b		hc		h	0		7	5	c		4	0	0	3.7	16.4	645		7	7	4	8	3	0
Sesleria caerulea	Poac	N		s	-0.09	45		p		hc		h	0		5	3			76	89	0	3.1	13.9	1262		7, 16	7	6	8	2	0
Setaria viridis	Poac	AN			0.80	70		a		Th		h	0					Unk	431	27	5	3.9	15.9	798		3, 4, 17	7	4	7	7	0
Sherardia arvensis	Rubi	N		n	-0.94	40		a		Th		h	0		8	3			1635	369	12	3.9	15.2	916		7, 16	7	4	6	4	0
Sibbaldia procumbens	Rosa	N		s	-0.75	5		p		hc		h	0		1	6			133	0	0	0.4	11.3	2109		15	8	5	4	3	0
Sibthorpia europaea	Scro	N		s	-0.14	5		p		Ch		h	Node2		7	1			107	9	8	5.3	15.5	1189		3, 14	5	7	5	5	0
Silaum silaus	Apia	N		n	-0.42	100		p		hc		h	0		7	4			963	0	0	3.6	15.8	743		6	8	5	7	4	0
Silene acaulis	Cary	N		n	-0.47	10		p		Ch		h	0		1	3			236	9	0	1.9	11.8	1937		7, 15, 16	8	5	6	1	0
Silene conica	Cary	N		s	-1.05	35		a		Th		h	0		8	4			59	0	10	4.0	16.0	702		8, 19	8	3	4	2	0
Silene dioica	Cary	N		n	-0.44	90		p		hc	Ch	h	0		5	3			2514	263	14	3.4	14.6	1065		1	5	6	6	7	0
Silene gallica	Cary	AR			-2.78	45		a		Th		h	0		9	2			455	31	11	4.2	15.7	877		3, 4	7	4	5	5	0
Silene latifolia	Cary	AR			-0.88	100		p		hc		h	0		8	4			1954	211	13	3.6	15.1	911		3	7	4	7	6	0
Silene noctiflora	Cary	AR			-2.04	50		a		Th		h	0		7	3			686	22	1	3.7	15.8	736		4	7	4	7	6	0
Silene nutans	Cary	N		s	-0.39	80		p		hc		h	0		7	4			52	0	10	4.3	15.7	883		16	8	3	8	4	0
Silene otites	Cary	N		r	-0.36	80		p		hc		h	0		7	3	c		18	0	0	3.2	16.1	625		3, 8	8	3	7	2	0
Silene uniflora	Cary	N		n	-0.39	28		p		hc		h	0		5	2			943	236	13	4.0	14.1	1263	Co	18	8	6	6	4	3
Silene vulgaris	Cary	N		n	-1.26	80		p		hc		h	0		8	5			1710	280	8	3.7	15.3	897		3, 6	7	4	8	5	0
Silybum marianum	Aste	AR			-0.07	100		b	a	hc	Th	h	0		0	3		Eur	552	64	6	4.0	15.8	781		3	8	4	8	6	1
Simethis planifolia	Lili	N		o		42		p		Gn		h	0		8	2			0	4	0	5.7	15.1	1324		10	7	5	4	3	0
Sinapis alba	Bras	AR			-0.90	90		a		Th		h	0		8	3			1082	162	10	3.8	15.5	832		3, 4	7	4	7	6	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Sinapis arvensis	Bras	AR			-1.76	90		a		Th		h	0		7	4			2373	772	11	3.7	14.7	1012		3, 4, 17	8	5	7	7	0
Sison amomum	Apia	N		n	-0.19	100		b		hc		h	0		9	2			790	0	0	3.9	16.2	756		3	7	4	7	5	0
Sisymbrium altissimum	Bras	AN			-0.84	100		a		Th		h	0					Eur	614	29	3	3.7	15.6	771		3, 17	8	5	6	4	0
Sisymbrium officinale	Bras	AR			-0.21	95		a	b	Th	hc	h	0		8	3			2117	775	13	3.8	15.0	973		3, 4, 17	7	4	7	7	0
Sisymbrium orientale	Bras	AN			-0.24	80		a		Th		h	0					Eur	864	75	10	3.8	15.6	815		3, 17	7	4	7	5	0
Sisyrinchium bermudiana	Irid	N		o	-1.80	23		p		hc		h	0		6	0			0	43	0	4.5	14.4	1290		6, 13	8	8	6	3	0
Sium latifolium	Apia	N		s	-1.83	200		p		Hy		h	0		7	4			259	34	0	3.7	15.9	702		11, 14	7	10	7	7	0
Smyrnium olusatrum	Apia	AR			0.66	150		b		hc		h	0					Eur	803	327	13	4.4	15.5	907		3	7	5	7	7	0
Solanum dulcamara	Sola	N		n	-0.11	225		p		Pn	Ch	sw	Node2		8	5			1918	533	14	3.8	15.2	945		3, 11, 14	7	8	7	7	0
Solanum nigrum	Sola	NA		n	0.44	60		a		Th		h	0		8	5			1258	0	14	3.9	15.9	809		4	7	5	7	8	0
Solanum sarachoides	Sola	AN				60		a		Th		h	0					SAm	88	0	4	3.8	16.1	696		4, 17	7	4	7	7	0
Solanum tuberosum	Sola	AN				100		p		Gn		h	Rhiz1					SAm	625	56	5	3.9	15.4	883		4	7	4	6	7	0
Soleirolia soleirolii	Urti	AN			2.36	10		p		Ch		h	Node2		0	2		Eur	773	130	11	4.3	15.7	906		3, 17	4	8	7	6	0
Solidago canadensis	Aste	AN				200		p		hc		h	Rhiz1					Am	981	24	5	3.6	15.6	833		3, 17	8	5	6	6	0
Solidago gigantea	Aste	AN				200		p		hc		h	Rhiz1					Am	645	1	0	3.5	15.5	854		3, 17	8	5	5	6	0
Solidago virgaurea	Aste	N		n	-0.89	70		p		hc		h	0		5	5			2043	492	5	3.4	14.2	1217		10, 16	5	5	4	3	0
Sonchus arvensis	Aste	N		n	-0.12	150		p		hc		h	Rhiz2		7	4			2320	806	9	3.8	14.8	1013		4	8	6	7	6	1
Sonchus asper	Aste	N		n	0.78	150		a		Th		h	0		8	3			2584	961	13	3.7	14.6	1070		3, 4	7	5	7	6	0
Sonchus oleraceus	Aste	N		n	-0.42	150		a		Th		h	0		8	3			2358	924	14	3.7	14.8	1031		3, 4	7	5	7	7	0
Sonchus palustris	Aste	N		s	0.18	250		p		hc		h	0		7	4			51	0	0	3.8	16.4	615		11	7	8	7	7	1
Sorbus anglica	Rosa	NE	VU	r		200		p		Pn		w	0		7	1			14	1	0	3.8	15.2	1082		1, 16	6	4	8	4	0
Sorbus aria	Rosa	N		n		1500		p		Ph		w	0		7	3			225	2	0	3.8	16.3	774		1	6	4	7	4	0
Sorbus aria agg.	Rosa	N		n	0.82	1000		p		Ph		w	0		7	3			341	75	0	3.8	16.3	780		17	6	5	7	4	0
Sorbus arranensis	Rosa	NE	VU	r		750		p		Ph		w	0		4	1			1	0	0	2.5	12.1	1530		16	7	4	4	3	0
Sorbus aucuparia	Rosa	N		n	0.86	1500		p		Ph		w	0		5	5			2472	749	0	3.4	14.4	1128		1, 2, 16	6	6	3	4	0
Sorbus bristoliensis	Rosa	NE	EN	r		1000		p		Ph		w	0		7	1			1	0	0	4.4	16.5	844		1, 16	6	4	8	4	0
Sorbus devoniensis	Rosa	NE		s		1500		p		Ph		w	0		7	1			32	11	0	5.0	15.4	1171		1, 3	6	5	6	5	0
Sorbus domestica	Rosa	N	CR	r		500		p		Ph		w	Root		8	3			4	0	0	4.5	16.5	857		16	6	4	8	3	0
Sorbus eminens	Rosa	NE	VU	r		600		p		Ph		w	0		7	1			8	0	0	4.4	16.2	878		1	6	5	7	5	0
Sorbus hibernica	Rosa	NE		o		600		p		Ph		w	0		7	1			0	63	0	4.5	14.6	1035		1, 3, 16	6	5	7	5	0
Sorbus intermedia	Rosa	AN				1000		p		Ph		w	0					Eur	686	17	2	3.5	15.2	901		1, 3, 17	6	6	8	7	0
Sorbus lancastriensis	Rosa	NE		r		500		p		Ph		w	0		7	1			9	0	0	3.3	14.8	1285		16	8	4	7	3	0
Sorbus leptophylla	Rosa	NE	CR	r		300		p		Pn	Ph	w	0		7	1			3	0	0	2.9	14.5	1501		16	5	5	7	5	0
Sorbus leyana	Rosa	NE	CR	r		200		p		Pn		w	0		7	1			2	0	0	2.5	14.0	1687		16	7	5	8	4	0
Sorbus minima	Rosa	NE	VU	r		300		p		Pn	Ph	w	0		7	1			1	0	0	2.2	14.0	1523		16	6	4	8	3	0
Sorbus porrigentiformis	Rosa	NE		s		500		p		Ph		w	0		7	1			30	0	0	3.8	15.2	1273		16	7	5	7	5	0
Sorbus pseudofennica	Rosa	NE	VU	r		700		p		Ph		w	0		4	1			1	0	0	2.5	12.1	1530		16	7	4	4	3	0
Sorbus rupicola	Rosa	N		s		200		p		Pn		w	0		4	2			98	13	0	2.9	13.6	1405		16	8	4	7	3	0
Sorbus subcuneata	Rosa	NE	VU	r		1000		p		Ph		w	0		7	1			4	0	0	4.0	14.9	1380		1	6	5	4	4	0
Sorbus torminalis	Rosa	N		n	0.22	1900		p		Ph		w	Root		7	3			573	0	0	3.9	16.0	804		1	4	5	6	5	0
Sorbus vexans	Rosa	NE	VU	r		600		p		Ph		w	0		7	1			4	0	0	4.2	14.9	1409		1, 16	6	5	4	4	0
Sorbus wilmottiana	Rosa	NE	CR	r		600		p		Ph		w	0		7	1			1	0	0	4.4	16.5	844		1, 16	6	4	8	3	0
Sparganium angustifolium	Spar	N		n	1.66		100	p		Hy		h	Rhiz2		4	3			652	207	0	3.0	12.9	1571		13	8	11	4	2	0
Sparganium emersum	Spar	N		n	0.61		60	p		Hy		h	Rhiz2		5	6			1426	393	1	3.6	15.0	982		13, 14	7	11	7	6	0
Sparganium erectum	Spar	N		n	0.48	150		p		Hy		h	Rhiz2		7	6			2129	766	8	3.7	14.9	1000		11, 13	7	10	7	7	0
Sparganium natans	Spar	N		n	-0.13		50	p		Hy		h	Rhiz2		5	6			508	267	0	3.3	13.8	1303		13	7	11	6	3	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Spartina alterniflora	Poac	AN			-0.22	110		p		hc		h	Rhiz2					Am	12	0	0	4.1	15.7	760	Co	21	9	9	8	7	7
Spartina anglica	Poac	NE		n	0.11	130		p		hc		h	Rhiz2		7	1			251	71	1	4.6	15.7	904	Co	21	9	9	8	6	7
Spartina maritima	Poac	N		s	-0.55	50		p		hc		h	Rhiz2		8	2			57	0	0	4.1	16.6	625	Co	21	9	9	8	5	6
Spergula arvensis	Cary	N		o	-2.30	30		a		Th		h	0		6	4			0	0	9	6.3	16.7	811		4	7	4	5	5	0
Spergularia bocconei	Cary	AN			-0.22	10		a		Th		h	0		9	1		Eur	18	0	9	5.9	16.3	901		16, 17, 19	9	4	6	7	0
Spergularia marina	Cary	N		n	1.83	10		a		Th		h	0		8	6			680	185	8	4.3	14.6	1094	Co	3, 21	8	8	8	6	5
Spergularia media	Cary	N		n	-0.24	15		p		Ch		h	0		8	4			659	186	0	4.2	14.6	1125	Co	21	8	8	8	5	5
Spergularia rubra	Cary	N		n	0.05	15		a		Th		h	0		8	3			1363	66	13	3.5	14.9	983		8, 17	8	3	4	2	0
Spergularia rupicola	Cary	N		n	0.30	10		p		Ch		h	0		7	0			239	169	13	5.2	15.1	1105	Co	18	9	6	6	5	3
Spiranthes aestivalis	Orch	N	EX	x		40		p		hc		h	0		7	3			1	0	2	5.6	16.5	822		11	9	8	8	2	0
Spiranthes romanzoffiana	Orch	N		s	0.45	25		p		hc		h	0		4	0			21	44	0	4.4	14.1	1248		11	8	8	6	4	0
Spiranthes spiralis	Orch	N		n	-0.95	15		p		hc		h	0		8	3			655	117	13	4.4	15.9	884		7	8	4	6	3	0
Spirodela polyrhiza	Lemn	N		n	-0.18		0.8	p		Hy		h	Frag		8	6			535	99	2	3.9	15.9	768		13	7	11	7	7	1
Stachys alpina	Lami	AN				100		p		hc		h	0		7	3		Eur	3	0	0	3.1	14.7	1007		1, 3	7	5	8	7	0
Stachys arvensis	Lami	AR			-1.17	25		a		Th		h	0		8	2			1418	206	13	4.0	15.3	964		3, 4	8	5	5	5	0
Stachys germanica	Lami	N	EN	r	-0.27	80		p		hc		h	0		7	3			10	0	0	3.4	16.1	661		3	7	3	8	5	0
Stachys officinalis	Lami	N		n	-0.62	60		p		hc		h	0		7	3			1571	38	4	3.6	15.4	940		6, 7	7	5	5	3	0
Stachys palustris	Lami	N		n	0.01	100		p		Gn		h	Rhiz2		5	6			2346	919	9	3.7	14.6	1079		11, 14	7	8	7	7	0
Stachys palustris x sylvatica (S. x ambigua)	Lami	NH		n		100		p		hc		h	Rhiz2						1020	117	4	3.5	14.7	1086		3, 14	7	6	6	6	1
Stachys sylvatica	Lami	N		n	-0.49	100		p		hc		h	Rhiz2		7	4			2462	806	12	3.6	14.7	1064		3	6	6	7	8	0
Stellaria graminea	Cary	N		n	-0.02	80		p		hc		h	Rhiz1		5	4			2446	852	8	3.5	14.6	1065		6	7	6	5	4	0
Stellaria holostea	Cary	N		n	-0.56	60		p		Ch		h	Rhiz1	Node1	7	4			2372	671	7	3.5	14.7	1058		1	5	5	6	6	0
Stellaria media	Cary	N		n		50		a		Th		h	0	Node1	6	5			2749	962	14	3.6	14.5	1095		3, 4	7	5	6	7	0
Stellaria media agg.	Cary	N		n	0.03	50		a		Th		h	0	Node1	6	5			2749	962	14	3.6	14.5	1095		3, 4	7	5	5	6	0
Stellaria neglecta	Cary	N		n	0.42	80		a		Th		h	0	Node1	7	3			775	4	0	3.9	15.6	911		1, 3	6	7	6	7	0
Stellaria nemorum	Cary	N		n	0.21	60		p		hc		h	Rhiz1		5	3			432	0	0	2.7	14.2	1027		1, 14	4	6	6	7	0
Stellaria pallida	Cary	N		n	1.17	50		a		Th		h	0	Node1	8	4			593	27	13	4.0	15.8	766		3, 19	7	4	4	4	0
Stellaria palustris	Cary	N		n	-0.89	60		p		hc		h	Rhiz1	Node1	5	5			389	73	1	3.6	15.5	793		11	7	8	6	4	0
Stellaria uliginosa	Cary	N		n	-0.10	40		p		hc		h	Rhiz1		7	3			2570	798	9	3.5	14.4	1128		11, 14	7	8	5	5	0
Stratiotes aloides	Hydr	NA		r	1.65		50	p		Hy		h	Stol1	DRa	5	4	c		65	0	0	3.5	16.1	596		13	7	11	7	6	1
Suaeda maritima	Chen	N		n	-0.47	30		a		Th		h	0		8	5			525	141	6	4.3	14.9	1094	Co	21	9	8	8	6	7
Suaeda vera	Chen	N		s	-0.11	120		p		Pn		w	0		9	1			47	0	1	4.1	16.4	620	Co	19, 21	9	7	8	5	5
Subularia aquatica	Bras	N		n	0.73		6	a		Hz		h	0		4	6			324	33	0	2.4	12.6	1789		13	7	11	5	2	0
Succisa pratensis	Dips	N		n	-0.57	100		p		hc		h	0	Rhiz1	7	4			2633	934	2	3.5	14.4	1124		6	7	7	5	2	0
Symphoricarpos albus	Capr	AN			1.74	200		p		Pn		w	Rhiz2					Am	2067	744	4	3.6	14.9	992		1, 3, 17	5	5	6	7	0
Symphytum asperum x officinale (S. x uplandicum)	Bora	AN				135		p		hc		h	0					Eur	1924	399	8	3.6	15.0	952		3	6	5	7	7	0
Symphytum officinale	Bora	N		n	0.34	135		p		hc		h	0		7	3			1263	189	10	3.7	15.4	871		11	7	7	7	8	0
Symphytum orientale	Bora	AN			1.83	70		p		hc		h	0					Eur	442	2	3	3.7	16.0	719		3	6	4	7	6	0
Symphytum tuberosum	Bora	N		n	0.11	55		p		hc		h	0		7	3			407	0	0	2.5	13.5	1047		1, 3	6	6	6	6	0
Syringa vulgaris	Olea	AN			4.48	700		p		Ph		w	Rhiz1					Eur	1296	163	4	3.6	15.3	881		3, 17	6	5	6	5	0
Tamus communis	Dios	N		n	-0.41	400		p		Gn		h	0		9	2			1421	0	4	3.8	15.7	850		1, 3	6	5	7	6	0
Tanacetum parthenium	Aste	AR			0.23	54		p		Ch	hc	h	0					Eur	2126	413	11	3.5	14.9	980		3, 17	7	4	7	6	0
Tanacetum vulgare	Aste	N		n	-0.23	120		p		hc		h	Rhiz1		5	5			2004	0	10	3.5	15.0	958		3	7	6	7	7	0
Taraxacum	Aste	N		n	0.43	30		p		hc		h	0		6	6			2778	974	14	3.5	14.5	1104		3, 5, 17	7	5	7	6	1

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Taxus baccata	Taxa	N		n	0.86	2000		p		Ph		w	0		7	3			1881	260	7	3.5	15.1	976		1	4	4	7	5	0
Teesdalia nudicaulis	Bras	N		n	-0.81	15		a		Th		h	0		7	3			509	11	12	3.4	15.0	949		8	8	3	2	2	0
Tellima grandiflora	Saxi	AN				70		p		hc		h	0					Am4	308	20	2	3.6	15.2	974		1, 3, 17	3	8	6	4	0
Tephroseris integrifolia	Aste	N		s	-0.79	60		b		hc		h	0		3	6	c		99	0	0	3.7	16.1	774		7	7	3	8	3	0
Tephroseris palustris	Aste	N	EX	x		100		p	b	hc		h	0		3	6			26	0	0	3.6	16.1	617		13	7	9	7	6	0
Teucrium botrys	Lami	AN			-0.42	30		a		Th		h	0		7	3	c	Eur	12	0	0	3.6	16.3	767		3, 4, 7, 16	9	2	8	2	0
Teucrium chamaedrys	Lami	AN			-0.41	25		p		Ch		sw	Rhiz1		8	3	c	Eur	72	2	0	4.2	15.7	856		3, 7, 16	8	2	8	1	0
Teucrium scordium	Lami	N	VU	r	-0.64	55		p		hc		h	Rhiz2		8	4			24	12	1	4.0	15.8	740		11, 13, 14	7	8	8	4	1
Teucrium scorodonia	Lami	N		n	-0.69	50		p		hc		h	Rhiz2		8	2			2322	588	14	3.5	14.5	1150		1, 9, 16	6	4	4	3	0
Thalictrum alpinum	Ranu	N		n	-0.34	15		p		hc		h	Rhiz2		1	6			409	23	0	2.0	12.1	1845		7, 11, 15, 16	8	7	6	3	0
Thalictrum flavum	Ranu	N		n	-0.53	100		p		hc		h	0		5	4			669	91	0	3.7	15.8	762		11	7	8	7	5	0
Thalictrum minus	Ranu	N		n	0.56	70		p		hc		h	Rhiz2		5	5			504	89	0	3.4	14.0	1185		16, 19	7	4	6	3	0
Thelypteris palustris	Thel	N		s	-0.35	100		p		Gn		h	Rhiz2		7	6			171	54	0	3.9	15.5	869		1, 11	6	8	7	5	0
Thesium humifusum	Sant	N		s	-0.21	20		p		Ch		h	0		7	1			145	0	6	3.8	16.2	762		7	8	3	8	3	0
Thlaspi arvense	Bras	AR			0.16	50		a		Th		h	0		7	5			1600	143	10	3.7	15.3	858		3, 4	7	4	7	6	0
Thlaspi caerulescens	Bras	N		s	0.01	40		p		Ch		h	0		4	3			70	0	0	2.0	13.5	1314		16	8	4	6	1	0
Thlaspi perfoliatum	Bras	N	VU	r	-0.94	17		a		Th		h	0		8	4			9	0	0	3.3	16.0	732		3, 16	8	4	8	2	0
Thuja plicata	Cupr	AN				4200		p		Ph		w	0					Am4	574	7	1	3.6	15.4	977		2, 17	4	5	5	4	0
Thymus polytrichus	Lami	N		n	-0.64	7		p		Ch		sw	Node2		5	3			2246	486	14	3.4	14.2	1175		7, 16	8	4	6	2	0
Thymus pulegioides	Lami	N		n	-0.38	25		p		Ch		sw	Node2		7	3			455	3	0	3.7	16.1	752		7	8	4	8	2	0
Thymus serpyllum	Lami	N		r	-0.11	4		p		Ch		sw	Node2		5	3	c		9	0	0	3.3	16.2	606		8	8	2	5	2	0
Tilia cordata	Tili	N		n	1.64	2500		p		Ph		w	0		7	4			896	20	3	3.5	15.5	873		1	5	5	6	5	0
Tilia cordata x platyphyllos (T. x europaea)	Tili	NH		r	0.33	2500		p		Ph		w	0						5	0	0	2.4	14.4	1064		1	5	5	6	6	0
Tilia platyphyllos	Tili	N		s	2.57	3000		p		Ph		w	0		7	3			84	0	0	3.3	15.6	816		1	4	5	7	6	0
Tofieldia pusilla	Lili	N		n	-0.32	20		p		hc		h	Rhiz1		1	6			156	0	0	0.6	11.6	1964		7, 11	8	9	7	2	0
Tolmiea menziesii	Saxi	AN				70		p		hc		h	0					Am4	267	11	0	3.2	14.3	1131		1	3	6	7	7	0
Tordylium maximum	Apia	AN				100		a		Th		h	0					Eur	11	1	0	4.0	16.3	739		6	7	3	6	5	0
Torilis arvensis	Apia	AR			-2.56	50		a		Th		h	0		8	4			389	0	0	3.7	16.2	707		4	8	4	8	4	0
Torilis japonica	Apia	N		n	-0.48	110		a		Th		h	0		7	5			2178	824	9	3.7	14.9	1004		3	7	5	7	7	0
Torilis nodosa	Apia	N		n	-0.36	50		a		Th		h	0		9	1			708	77	9	4.1	15.9	792		3, 6	8	5	7	6	1
Tragopogon pratensis	Aste	N		n	-0.30	75		b		hc		h	0		7	4			1749	124	1	3.6	15.3	871		6	8	4	7	5	0
Trichomanes speciosum	Hyme	N	VU	n	2.23	35		p		Ch		h	Rhiz1	DRp	7	0			162	62	0	3.8	14.2	1390		16	2	7	7	3	0
Trichophorum alpinum	Cype	N	EX	x		30		p		hc		h	Rhiz1		4	6	c		1	0	0	2.8	14.0	858		12	8	9	2	2	0
Trichophorum cespitosum	Cype	N		n	-0.31	35		p		hc		h	0gr		4	6			1553	629	0	3.2	13.7	1312		10, 12	8	8	2	1	0
Trientalis europaea	Prim	N		n	-0.27	20		p		Gn		h	Rhiz2	DRg	4	6			514	0	0	1.8	12.6	1277		1, 2, 10	5	6	3	3	0
Trifolium arvense	Faba	N		n	-0.01	20		a		Th		h	0		8	4			1205	56	14	3.8	15.5	841		8	9	3	5	2	1
Trifolium bocconei	Faba	N	VU	r		20		a		Th		h	0		9	1			3	0	2	6.5	16.2	867		16	9	4	5	2	0
Trifolium campestre	Faba	N		n	-0.45	20		a		Th		h	0		8	4			1996	381	14	3.7	15.1	939		3, 16, 19	8	4	6	4	0
Trifolium dubium	Faba	N		n	-0.11	15		a		Th		h	0		7	3			2548	942	14	3.6	14.6	1072		6	7	4	6	5	0
Trifolium fragiferum	Faba	N		n	-0.81	10		p		hc		h	Node2		8	4			753	42	6	4.0	16.0	764		6	8	7	7	6	2
Trifolium glomeratum	Faba	N		s	-0.11	10		a		Th		h	0		9	1			148	5	13	4.6	16.3	767		8	9	3	5	2	0
Trifolium hybridum	Faba	AN			-0.48	60		p		hc		h	0					Eur	1940	214	11	3.5	15.0	943		3, 5	7	5	7	6	0
Trifolium incarnatum	Faba	N	VU	r	-1.76	50		a		Th		h	0		9	1			3	0	4	6.4	16.4	883		3, 18	8	2	5	2	1
Trifolium incarnatum subsp.incarnatum	Faba	AN				50		a		Th		h	0					Crop	196	1	5	4.0	16.1	780		3	7	4	6	5	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Trifolium incarnatum subsp.molinerii	Faba	N	VU	r		20		a		Th		h	0		9	1			3	0	4	6.4	16.4	883	Co	18	8	2	5	2	1
Trifolium medium	Faba	N		n	-0.53	45		p		hc		h	0		5	4			2050	208	2	3.4	14.8	1008		6	7	4	6	4	0
Trifolium micranthum	Faba	N		n	0.62	7		a		Th		h	0		9	2			909	52	13	4.1	15.9	848		8, 17	8	5	5	5	0
Trifolium occidentale	Faba	N		s		10		p		hc	Ch	h	Node2		7	0			21	9	12	6.3	15.9	940	Co	18	9	4	6	2	3
Trifolium ochroleucon	Faba	N		s	-0.84	45		p		hc		h	0		7	3			127	0	0	3.4	16.3	595		3, 6	7	5	8	2	0
Trifolium ornithopodioides	Faba	N		n	0.42	12		a		Th		h	0		8	2			281	18	14	4.8	16.1	874		8	9	6	5	3	0
Trifolium pratense	Faba	N		n	-0.18	45		p		hc		h	0		7	4			2745	976	14	3.6	14.5	1100		6, 7	7	5	7	5	0
Trifolium repens	Faba	N		n	1.31	20		p		hc	Ch	h	Node2		5	4			2798	981	14	3.5	14.5	1105		6	7	5	6	6	0
Trifolium scabrum	Faba	N		n	-0.39	20		a		Th		h	0		9	2			390	12	11	4.5	15.9	831		8	9	3	7	2	1
Trifolium squamosum	Faba	N		s	-0.32	40		a		Th		h	0		9	1			116	0	6	4.5	16.5	757	Co	6, 19	9	6	7	6	3
Trifolium striatum	Faba	N		n	-0.11	20		a		Th		h	0		8	3			848	31	12	4.0	15.7	805		8	8	3	5	2	0
Trifolium strictum	Faba	N	VU	r		15		a		Th		h	0		9	2			4	0	2	5.8	15.9	874		16	9	2	5	2	0
Trifolium subterraneum	Faba	N		n	-0.10	10		a		Th		h	0		9	2			337	1	13	4.5	16.2	805		8, 16	8	3	4	2	0
Trifolium suffocatum	Faba	N		s	0.14	5		a		Th		h	0		9	1			96	0	13	4.8	16.4	774		8	8	4	4	2	0
Triglochin maritimum	Junc	N		n	-0.44	55		p		hc		h	Rhiz1		5	6			837	251	5	4.2	14.3	1181	Co	21	8	7	7	5	4
Triglochin palustre	Junc	N		n	-0.22	55		p		hc		h	Rhiz2		5	6			2196	714	5	3.4	14.2	1145		11	8	9	6	2	2
Trinia glauca	Apia	N		r	0.12	20		b		hc		h	0		8	3			6	0	0	4.9	16.4	889		7	9	2	8	1	0
Tripleurospermum inodorum	Aste	AR				60		a		Th		h	0		7	4			2119	424	12	3.6	14.9	967		4, 17	8	5	6	6	0
Tripleurospermum maritimum	Aste	N		n		60		p		Ch	hc	h	0		3	6			757	273	3	4.4	14.5	1132	Co	18, 19	8	5	6	6	1
Tripleurospermum maritimum sens.lat.	Aste	N		n	0.31	60		a	p	Th	hc	h	0		3	6			757	273	3	4.4	14.5	1132		4, 17, 18, 19	8	5	6	6	1
Trisetum flavescens	Poac	N		n	-0.13	80		p		hc		h	0		7	3			1734	367	6	3.6	15.2	900		6, 7	7	4	7	4	0
Triticum aestivum	Poac	AC				150		a		Th		h	0					Crop	741	59	4	3.8	15.6	861		3, 4	8	5	7	7	0
Trollius europaeus	Ranu	N		n	-0.73	60		p		hc		h	0		4	3			856	8	0	2.2	13.0	1517		11, 16	7	7	6	4	0
Tsuga heterophylla	Pina	AN				4600		p		Ph		w	0					Am4	598	12	0	3.4	14.9	1102		1, 2, 17	6	6	3	3	0
Tuberaria guttata	Cist	N	VU	r		15		a		Th		h	0		9	1			5	10	4	5.7	15.5	1069		10	9	2	5	1	0
Tussilago farfara	Aste	N		n	-0.65	30		p		Gn		h	Rhiz2		5	4			2618	906	7	3.5	14.5	1085		16	7	6	6	6	0
Typha angustifolia	Typh	N		n	0.35	300		p		Hy		h	Rhiz2		7	4			776	60	6	3.7	15.8	775		11	8	10	7	7	1
Typha latifolia	Typh	N		n	1.01	275		p		Hy		h	Rhiz2		8	6			1860	682	9	3.8	15.1	958		11	8	10	7	7	0
Ulex europaeus	Faba	N		n	-0.34	200		p		Pn		w	0		7	1			2518	956	14	3.6	14.6	1090		10	7	5	5	3	0
Ulex gallii	Faba	N		n	0.20	150		p		Pn		w	0		7	1			918	382	11	4.1	15.0	1099		10	7	6	3	2	0
Ulex minor	Faba	N		n	0.20	100		p		Pn		w	0		8	1			197	0	4	3.9	16.4	745		10	8	6	1	2	0
Ulmus glabra	Ulma	N		n	-0.28	3000		p		Ph		w	0		7	3			2338	608	0	3.4	14.7	1056		1	4	5	7	6	0
Ulmus minor	Ulma	N		n	0.75	3100		p		Ph		w	Root		7	3			641	0	9	3.9	16.1	764		1, 3	5	5	7	7	0
Ulmus plotii	Ulma	NE		s		2000		p		Ph		w	Root		7	1			128	0	0	3.4	16.0	667		3	5	5	7	7	0
Ulmus procera	Ulma	NA		n	-0.48	3300		p		Ph		w	Root		7	3			1317	0	0	3.7	15.8	819		3	5	5	8	6	0
Umbilicus rupestris	Cras	N		n	-0.12	38		p		hc		h	0		9	1			784	658	14	4.3	14.9	1125		3, 16	6	4	5	4	0
Urtica dioica	Urti	N		n	0.28	150		p		hc		h	Rhiz2	Stol2	5	4			2773	983	13	3.6	14.5	1102		3, 14, 17	6	6	7	8	0
Urtica urens	Urti	AR			-0.70	60		a		Th		h	0		8	4			1924	283	14	3.7	15.0	914		4, 17	8	5	6	8	0
Utricularia australis	Lent	N		s			60	p		Hy		h	DRa		5	5			162	58	0	4.0	15.0	1120		13	7	12	5	3	0
Utricularia intermedia sens.lat.	Lent	N		n	0.40		20	p		Hy		h	DRa		4	6			412	156	0	3.1	13.2	1545		11, 12, 13	8	12	4	2	0
Utricularia intermedia sens.str.	Lent	N		n			20	p		Hy		h	DRa		?	?										13	8	12	4	2	0
Utricularia minor	Lent	N		n	0.20		40	p		Hy		h	DRa		5	6			628	377	1	3.6	13.9	1321		11, 12	8	12	4	2	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	CI	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Utricularia ochroleuca	Lent	N		i			20	p		Hy		h	DRa		?	?										11, 13	8	12	3	1	0
Utricularia stygia	Lent	N		i			20	p		Hy		h	DRa		?	?										11, 13	8	12	5	2	0
Utricularia vulgaris sens.lat.	Lent	N		n	0.47		100	p		Hy		h	DRa		5	5			744	301	0	3.6	14.4	1148		13	7	12	6	4	0
Utricularia vulgaris sens.str.	Lent	N		s			100	p		Hy		h	DRa		7	4			159	77	0	3.8	15.3	874		11	7	12	7	4	0
Vaccinium microcarpum	Eric	N		s	0.81	30		p		Ch		h	Node2		4	6			100	0	0	0.9	11.9	1339		12	7	8	1	1	0
Vaccinium myrtillus	Eric	N		n	-0.61	50		p		Ch	Pn	w	Rhiz2		4	4			1886	701	1	3.3	13.9	1243		10, 16	6	6	2	2	0
Vaccinium oxycoccos	Eric	N		n	0.28	30		p		Ch		h	Node2		4	6			725	246	0	3.0	14.0	1229		12	8	9	2	1	0
Vaccinium uliginosum	Eric	N		n	-0.39	50		p		Ch	Pn	w	Rhiz2		2	6			252	0	0	1.1	11.7	1897		12, 15, 16	7	6	2	2	0
Vaccinium vitis-idaea	Eric	N		n	-0.18	30		p		Ch		w	Rhiz2		2	6			938	89	0	2.2	12.9	1474		2, 10, 15	6	5	2	2	0
Valeriana dioica	Vale	N		n	-0.67	35		p		hc		h	Stol2		7	3			1171	0	0	3.2	15.3	896		11	8	8	6	3	0
Valeriana officinalis	Vale	N		n	-0.64	175		p		hc		h	0	Rhiz1	5	5			2408	808	0	3.4	14.5	1115		11	6	8	6	5	0
Valeriana pyrenaica	Vale	AN			-0.35	110		p		hc		h	0					Eur	195	8	0	2.7	13.8	1151		1, 3	5	7	5	5	0
Valerianella carinata	Vale	AR			2.15	15		a		Th		h	0		8	3			547	66	13	4.3	15.8	931		3, 17	8	4	8	4	0
Valerianella dentata	Vale	AR			-1.86	15		a		Th		h	0		7	3			600	45	4	3.9	15.7	800		4	8	4	7	4	0
Valerianella eriocarpa	Vale	AN			-0.69	15		a		Th		h	0		9	2		Eur	59	0	6	4.5	16.0	826		3, 16	8	3	8	3	0
Valerianella locusta	Vale	N		n	-0.11	15		a		Th		h	0		7	3			1358	238	9	3.9	15.3	925		3, 16, 19	8	4	6	4	0
Valerianella rimosa	Vale	AR	CR		-2.55	15		a		Th		h	0		7	3			181	27	0	4.3	15.9	860		4	8	4	8	3	0
Verbascum lychnitis	Scro	N		s	-0.23	150		b		hc		h	0		7	3			42	0	0	4.1	16.5	790		3, 7	7	3	7	3	0
Verbascum nigrum	Scro	N		n	-0.12	120		b		hc		h	0		7	4			479	0	8	3.9	16.2	742		3	7	4	7	6	0
Verbascum pulverulentum	Scro	NA		s	0.94	135		b		hc		h	0		9	2			51	0	0	3.4	16.1	624		3, 16	8	3	7	5	0
Verbascum thapsus	Scro	N		n	0.27	200		b		hc		h	0		7	4			1874	375	12	3.7	15.2	918		3	7	4	7	5	0
Verbascum virgatum	Scro	AN			0.35	100		b		hc		h	0		8	2		Eur	339	13	3	4.2	15.8	870		3, 5, 17, 19	8	4	5	5	0
Verbena officinalis	Verb	AR			-0.43	67		p		hc		h	0		8	5			857	90	10	4.1	15.8	859		3, 16	8	5	7	6	0
Veronica agrestis	Scro	AR			-0.38	10		a		Th		h	0		7	3			1715	177	9	3.5	15.0	963		3, 4, 17	7	6	6	7	0
Veronica alpina	Scro	N		s	-0.29	12		p		Ch		h	0		1	4			35	0	0	-0.7	10.9	1783		15	8	6	5	2	0
Veronica anagallis-aquatica	Scro	N		n	0.05	50		a	p	Hz	Hy	h	Node1		8	5			1225	459	3	3.7	15.1	899		13, 14	7	10	7	7	0
Veronica arvensis	Scro	N		n	0.48	25		a		Th		h	0		8	3			2614	793	14	3.5	14.6	1077		3, 4, 16	8	4	6	5	0
Veronica beccabunga	Scro	N		n	-0.31	45		p		Hy	Ch	h	Node1		7	4			2333	912	9	3.6	14.7	1034		11, 14	7	10	6	6	0
Veronica catenata	Scro	N		n	0.37	50		a	p	Hz	Hy	h	Node1		7	6			956	249	4	3.8	15.6	816		13, 14	8	10	7	8	0
Veronica chamaedrys	Scro	N		n	-0.50	30		p		Ch	hc	h	Node2		5	4			2609	945	14	3.5	14.5	1095		1, 3, 6	6	5	6	5	0
Veronica filiformis	Scro	AN			2.69	5		p		hc	Ch	h	Node2					Eur	2013	397	9	3.6	14.9	990		3, 17	7	6	7	7	0
Veronica fruticans	Scro	N		s	0.11	14		p		Ch		sw	0		1	3			26	0	0	-0.5	11.2	1821		15, 16	8	5	7	2	0
Veronica hederifolia	Scro	AR			0.57	30		a		Th		h	0		8	3			1944	346	14	3.7	15.1	918		1, 3, 4, 17	6	5	7	6	0
Veronica montana	Scro	N		n	0.48	15		p		Ch		h	Node2		7	3			1808	506	0	3.6	14.9	1029		1	4	6	6	6	0
Veronica officinalis	Scro	N		n	-0.84	23		p		Ch		h	Node1		5	3			2507	754	8	3.4	14.4	1125		7, 8	6	5	4	4	0
Veronica persica	Scro	AN			-0.37	30		a		Th		h	0	Node1				Eur	2232	722	13	3.7	14.9	993		3, 4, 17	6	5	7	7	0
Veronica polita	Scro	AN			0.07	10		a		Th		h	0		8	4		Eur, As1	1237	107	8	3.8	15.5	867		4, 17	7	4	7	5	0
Veronica praecox	Scro	AN				15		a		Th		h	0		8	3	c	Eur	6	0	0	3.3	16.3	618		3, 4, 8	8	2	8	1	0
Veronica scutellata	Scro	N		n	-0.06	25		p		hc		h	Node1		5	4			1877	576	3	3.4	14.3	1129		11, 13	8	9	5	3	0
Veronica serpyllifolia	Scro	N		n	0.80	10		p		hc		h	Node2		5	6			2652	884	11	3.5	14.5	1104		3, 5, 11	7	5	6	5	0
Veronica spicata	Scro	N		s	0.13	45		p		hc	Ch	h	Node1		7	4	c		28	0	0	3.7	15.3	949		7, 16	8	3	7	2	0
Veronica triphyllos	Scro	AR	EN		-0.82	15		a		Th		h	0		7	3	c		33	0	0	3.5	16.1	690		3, 4	7	4	7	3	0
Veronica verna	Scro	N	VU	r	-0.64	15		a		Th		h	0		7	4	c		7	0	0	3.3	16.2	618		8	8	2	5	1	0
Viburnum lantana	Capr	N		n	0.37	600		p		Ph		w	0		7	3			537	0	0	3.8	16.2	763		1, 3	7	5	7	5	0
Viburnum opulus	Capr	N		n	-0.15	400		p		Ph		w	0		7	6			1854	565	1	3.6	15.0	1019		1	6	7	6	6	0
Vicia bithynica	Faba	N		s	-0.52	60		p		hc		h	0		9	1			74	0	4	4.4	16.1	827		3	7	4	6	4	0

Taxon name	Fam	NS	CS	RS	Chg	Hght	Len	P1	P2	LF1	LF2	W	Clone1	Clone2	E1	E2	C	Origin	GB	IR	Cl	Tjan	Tjul	Prec	Co	Br Habitats	L	F	R	N	S
Vicia cracca	Faba	N		n	-0.37	120		p		hc		h	Rhiz1		5	5			2647	938	10	3.6	14.5	1083		3, 11	7	6	7	5	0
Vicia faba	Faba	AN				100		a		Th		h	0					Crop	377	5	2	3.7	16.1	734		4, 17	8	4	7	7	0
Vicia hirsuta	Faba	N		n	0.05	80		a		Th		h	0		7	3			1925	285	12	3.7	15.2	926		3, 6	7	5	6	6	0
Vicia lathyroides	Faba	N		n	-0.36	10		a		Th		h	0		7	3			501	27	11	3.8	15.2	808		8, 19	8	3	5	3	0
Vicia lutea	Faba	N		s	-0.85	50		a		Th		h	0		9	2			58	0	7	4.8	15.9	844	Co	18, 19	7	4	7	5	1
Vicia orobus	Faba	N		s	-0.34	60		p		hc		h	0		7	2			214	15	0	3.0	13.8	1410		16	7	5	5	4	0
Vicia parviflora	Faba	N		s	-1.05	60		a		Th		h	0		9	2			136	0	0	3.9	16.3	695		3, 4	7	5	7	5	0
Vicia sativa	Faba	N		n	0.19	90		a		Th		h	0		8	3			1930	472	14	3.7	14.9	991		6	7	4	7	4	0
Vicia sepium	Faba	N		n	-0.43	60		p		hc		h	Rhiz1		5	4			2615	945	4	3.5	14.5	1095		3, 6	6	5	6	6	0
Vicia sylvatica	Faba	N		n	-0.71	150		p		hc		h	Rhiz1		5	4			623	57	0	3.1	14.3	1119		1, 3, 16	7	5	7	5	0
Vicia tetrasperma	Faba	N		n	0.45	60		a		Th		h	0		7	3			1159	0	10	3.9	15.9	804		3, 4, 6	7	5	7	6	0
Vicia villosa	Faba	AN				150		a		Th		h	0		8	3	c	Eur	147	2	3	3.8	16.1	757		3, 4	7	4	6	5	0
Vinca major	Apoc	AN			1.49	35		p		Ch		h	Tip					Eur	1336	231	12	4.0	15.6	873		1, 3, 17	5	6	7	6	0
Vinca minor	Apoc	AR			0.48	15		p		Ch		h	Node2					Eur	1359	122	8	3.7	15.3	893		1, 3, 17	4	6	7	7	0
Viola arvensis	Viol	AR			-0.29	40		a		Th		h	0		7	4			2065	333	11	3.6	15.0	940		4	8	4	6	6	0
Viola canina	Viol	N		n	-0.87	18		p		hc		h	0		5	4			1030	183	2	3.5	14.7	1008		8, 10	8	4	5	2	0
Viola hirta	Viol	N		n	-0.46	15		p		hc		h	0	Rhiz1	7	4			964	19	0	3.7	15.7	795		7	7	4	8	2	0
Viola kitaibeliana	Viol	N	VU	r		10		a		Th		h	0		8	3			2	0	8	6.7	16.6	814		19	9	3	5	2	1
Viola lactea	Viol	N		s	-1.08	15		p		hc		h	0		7	1			183	20	0	5.0	15.8	1025		10	7	6	2	2	0
Viola lutea	Viol	N		n	-0.69	20		p		hc		h	Rhiz2		4	3			536	18	0	2.0	13.3	1281		7, 8, 16	8	5	5	2	0
Viola odorata	Viol	N		n	-0.19	15		p		hc		h	Stol2		7	3			1340	97	0	3.8	15.7	833		7	5	5	7	7	0
Viola palustris	Viol	N		n	-0.30	15		p		hc		h	Rhiz2		5	3			1880	560	0	3.3	13.9	1262		11, 14	7	9	3	2	0
Viola persicifolia	Viol	N	EN	r	-0.62	25		p		hc		h	0		7	4	c		18	17	0	3.9	15.4	826		11	7	8	7	3	0
Viola reichenbachiana	Viol	N		n	0.20	13		p		hc		h	0		7	3			1128	285	0	3.8	15.5	869		1	4	6	7	5	0
Viola riviniana	Viol	N		n	1.07	18		p		hc		h	0	Root	7	3			2741	968	14	3.5	14.4	1112		1, 7, 16	6	5	5	4	0
Viola rupestris	Viol	N		r		5		p		hc		h	0		7	5	c		7	0	0	1.6	13.3	1393		7	8	3	8	2	0
Viola tricolor	Viol	N		n	-1.52	20		a	p	Th	hc	h	0		7	3			1691	243	3	3.4	14.6	992		4, 8, 19	8	4	6	4	0
Viscum album	Visc	N		n	0.97	100		p		Ch	Pn	w	0		7	3			923	6	4	3.8	15.9	788		3, 17	7	5	6	5	0
Vulpia bromoides	Poac	N		n	0.18	37		a		Th		h	0		9	2			1777	513	12	3.8	15.0	1006		3	8	4	5	3	0
Vulpia ciliata	Poac	N		s	0.78	37		a		Th		h	0		9	1			109	0	5	4.0	16.3	716		8	9	2	7	2	1
Vulpia fasciculata	Poac	N		s	0.37	55		a		Th		h	0		9	1			109	18	9	5.0	15.8	911	Co	19	9	3	7	2	1
Vulpia myuros	Poac	AR			1.55	62		a		Th		h	0		8	4			1134	117	9	3.9	15.6	866		3, 17	8	3	6	3	0
Vulpia unilateralis	Poac	AN			-0.56	35		a		Th		h	0		9	2		Eur	39	0	0	3.6	16.2	705		3, 7	9	3	8	2	0
Wahlenbergia hederacea	Camp	N		n	-0.30	5		p		hc		h	Node2		8	1			314	40	3	4.1	14.9	1280		11, 14	6	8	3	3	0
Wolffia arrhiza	Lemn	N		s	-0.03		0.1	p		Hy		h	Frag		8	4			48	0	0	4.4	16.6	752		13	7	11	7	7	0
Woodsia alpina	Wood	N		r	0.11	8		p		hc		h	0		2	6			22	0	0	0.4	11.6	2371		15, 16	7	4	8	2	0
Woodsia ilvensis	Wood	N	EN	r	-0.10	10		p		hc		h	0		2	6			14	0	0	1.3	12.4	2108		16	7	3	5	2	0
Zannichellia palustris	Zann	N		n	0.17		50	p		Hy		h	Irreg	Rhiz2	8	6			1196	206	5	3.8	15.5	820		13, 14	7	12	8	7	2
Zea mays	Poac	AC				300		a		Th		h	0					Crop	92	1	1	4.0	15.9	820		4, 17	8	3	8	7	0
Zostera angustifolia	Zost	N		s	-0.68		30	p		Hy		h	Rhiz2		?	?			131	27	6	4.3	15.0	926	Co	21	7	12	8	5	8
Zostera marina	Zost	N		n	-0.86		50	p		Hy		h	Rhiz2		6	6			296	68	13	4.5	14.6	1156	Co	21, 23	6	12	8	6	8
Zostera noltei	Zost	N		s	-0.51		12	p		Hy		h	Rhiz2		8	5			159	36	4	4.2	14.9	1020	Co	21	8	11	8	5	8

APPENDIX

Sources for plant height

Plant heights have been calculated from a range of sources and have been subject to personal adjustment. The main sources were Clapham, Tutin & Warburg (1962), Stace (1991, 1997) and Sell & Murrell (1996). Values that were thought to be too big, especially the height of procumbent species, were modified using information in Butcher (1961).

A nearly complete set of additional height values was taken from sources including *Flora Iberica* (Castroviejo *et al.*, 1986-), a Czech flora (Dostál, 1958) and BSBI handbooks such as *Crucifers of Great Britain and Ireland* (Rich, 1991). Other such sources included Aeschimann & Burdet (1994), Hutchinson & Thomas (1966), Jermy, Chater & David (1982), Meikle (1984), Page (1997) and Preston (1995). The new values were checked against those derived from the main sources. For those species where there was a difference of more than a factor of 1.5 between the two sources, the discrepancy was resolved by making a judgement as to which seemed most suitable for British conditions. In addition, all heights of pteridophytes and of trees and shrubs exceeding 5 m have been critically examined.

A difficulty with creeping or procumbent plants is that the floras give shoot length but not plant height. For several such plants, the canopy height was estimated by Hill, using descriptions and personal experience. Likewise Preston estimated the heights of Aizoaceae (cf Preston & Sell, 1989).

Many difficulties in assigning height to a plant remain. The height of a fern is taken to be the length of its fronds. Scapose plants such as *Pinguicula lusitanica* may be very small except for their scape. In several scapose genera (e.g. *Bellis, Pilosella, Pinguicula, Plantago, Primula, Pyrola*), the length of the leaves is used as a measure of size. On the other hand, rosette plants with substantial inflorescences (e.g. *Sempervivum tectorum*) have been accorded the height of their inflorescence rather than the length of the leaves. It was impossible to be completely consistent. Maximum height is a general indication of the size of the plant rather than a precise measure.

The resulting table is inevitably a complex result of cited values and personal judgement. It was clear that authors repeat each other and that their information is often wrong. Overestimates abound because botanists take pleasure in extreme values. For example, British authors and *Flora Europaea* (Tutin *et al.*, 1964-1980) give the height of *Ulmus glabra* as 40 m, higher than any other elm. This is clearly unrealistic, but authors' copying of height data has meant that the value 40 m is constantly repeated. Fortunately Bean (1950-1951) indicates a more realistic value of 30 m, which has been used here. We have in many other cases tried to drive heights down from extreme to typical values, by selecting the publication with the lowest values.

Definition of life forms

Life forms (Raunkiaer, 1934) are an example of what are now called 'plant functional types' (cf. Box, 1996). A modified version of Raunkiaer's system was set out by Clapham, Tutin & Warburg (1962), who specified a life form for almost all species. Their assignments are a valuable starting point but contain many inconsistencies. For PLANTATT, they have been comprehensively revised. The categories were partially redefined (Table A1).

Table A1. Life form categories from Clapham, Tutin & Warburg (1962) and revised categories

Category (CTW)	Definition (CTW)	PLANTATT	Definition (database)
Phanerophyte, mega-, meso-	>8 m	**Ph**	Mega-, meso- and microphanerophyte
Phanerophyte, micro-	2-8 m	**Ph**	(combined with taller phanerophytes)
Phanerophyte, nano-	25 cm-2 m	**Pn**	Nanophanerophyte
Chamaephytes	0-25 cm	**Ch**	Chamaephyte
Hemicryptophytes	Wintering buds at soil surface	**hc**	Hemicryptophyte
Geophytes	Herbs with wintering buds below the soil surface	**Gb, Gn**	Geophytes
Helophytes	Marsh plants	(not recognized)	
Hydrophytes	Water plants	**Hy**	Perennating buds submerged during winter
		Hz	Annual water plant
Therophytes	Passing unfavourable season as seeds	**Th**	Annual land plant, including those living on summer mud

The redefined categories are generally self-explanatory. As the database contains plant heights, the distinctions between phanerophytes and chamaephytes, and distinctions within phanerophytes, are not entirely necessary. If required, new categories can be derived using combinations of character's. For example German authors such as Mueller-Dombois & Ellenberg (1974) generally allow chamaephytes to be up to 50 cm tall and distinguish a category of dwarf shrubs (denoted by Z - *Zwergsträucher)*. These are woody or semi-woody chamaephytes. It would be possible to reconstruct this category from our database, allowing for the fact that ordinary maximum heights of many of these bushes might be up to 100 cm.

Other categories included by Mueller-Dombois & Ellenberg (1974) are lianes, epiphytes and errant hydrophytes (unattached water plants). They define Hemicryptophytes as plants that die back to near the ground in the unfavourable season. Although worked out in some detail, their scheme remains somewhat tentative and we have not adopted it.

Examples of how life-form criteria are applied

The criteria given above result in many discrepancies between our definitions of life form and those of Clapham, Tutin & Warburg (1962). For example, the distinction between geophytes and

hemicryptophytes is often hard to apply with rhizomatous perennials. In principle, plants whose new shoots penetrate the surface before the advent of winter are hemicryptophytes, while those whose shoots remain well buried are geophytes. Thus *Phragmites australis*, with a relatively deep rhizome (Preston & Croft, 1997), has the life forms perennial **Hy** and **Gn**. In *Carex acutiformis*, however, many new shoots have already emerged by the autumn (Preston & Croft, 1997). It is also less strongly aquatic. It is therefore given the life forms **hc** and **Hy**.

In general, biennials have been classified as hemicryptophytes, but a few such as *Euphorbia lathyris*, which are elongated from the beginning, are chamaephytes.

It is instructive to consider some other cases (Table A2), which will not be discussed in detail.

Table A2. Some cases where life-form (LF) is difficult to apply or where our concept differs from that of Clapham, Tutin & Warburg (1962)

Species	LF (CTW)	LF (here)	Comment
Anagallis tenella	Ch	**hc, Ch**	Does not die back, but buds are at ground level. Life forms are the same as for *Trifolium repens*.
Iris foetidissma	Ch	**hc**	Buds are at ground level. Although winter-green, it is no more a chamaephyte than *Lolium perenne*.
Lavatera arborea	hc	**Pn**	A monocarpic plant. Not classified as Ph as it does not reach full size till its final season.
Origanum vulgare	Ch	**Ch, hc**	Genuinely intermediate; dies back to well below 25 cm in winter, regrowing from the base and from short shoots.
Polypodium vulgare	Gn, Ch	**hc, Gn**	Rhizomes are on or below surface; by analogy with *Anagallis tenella* more **hc** than **Ch**.
Pyrola media	hc	**hc**	Stems too short for **Ch**, although it is winter-green.
Saxifraga spathularis	hc	**hc, Ch**	Intermediate; the buds are slightly above the ground, although it is a rosette plant.
Tanacetum parthenium	hc	**Ch, hc**	Intermediate; dies back below 25 cm, with overwintering buds near the ground but mostly slightly above it.

Links between life forms and plant height

Because chamaephytes and our two categories of phanerophytes are defined on the basis of height, an effort was made to define life forms consistently by reference to plant height (Table A3). Sometimes, as in *Artemisia campestris*, the overwintering buds are at a substantially lower height than the height of the mature plant. Therefore, this scheme has not been followed exactly but has been used as a guide.

These definitions are necessarily imprecise. However, knowing that *Calluna vulgaris* has a typical maximum height of 60 cm suggests that it will often grow as a chamaephyte and often as a nanophanerophyte. This is indeed the case; *C. vulgaris* is the classic dwarf shrub.

Table A3. Chamaephyte and phanerophyte categories in relation to plant height

Typical maximum plant height (cm)	Primary life form	Secondary life form
3-39	Ch	
40-69	Ch	Pn
70-299	Pn	
300-399	Pn	Ph
400-	Ph	

Clonality

Clonality can be defined in various ways. In an enumeration for Central Europe, Klimeš *et al.* (1997) defined clonal growth as synonymous with vegetative multiplication, which results in the production of new, genetically identical descendants (ramets) with the potential to become independent of the mother organism. According to this definition, plants that produce a new ramet each year but do not spread laterally (for example many orchids) are clonal. Klimeš *et al.* recognize 21 different clonal types. These are described in Klimeš's excellent website *Clopla1 (http://www.butbn.cas.cz/klimes/clopla1.htm)*; all species of Central Europe, including the majority of British and Irish plants, are assigned to one or more clonal types.

Here we adopt a more familiar definition of clonal growth, namely vegetative reproduction combined with lateral spread – i.e. spreading through the formation of clonal patches or clumps, or through fragmentation and subsequent dispersal of plant parts.

Broad Habitats

The Broad Habitat Classification, developed as part of the UK Biodiversity Action Plan (Jackson, 2000; UK Biodiversity Group, 1998; UK Biodiversity Steering Group, 1995), provides a comprehensive framework for surveillance of the UK countryside. We categorized the habitats of plants by their preferences for Broad Habitats.

In the UK Biodiversity Action Plan (UK Biodiversity Steering Group, 1995), 37 Broad Habitat categories were defined. These included some habitats, such as limestone pavements, that are quite narrow but were specified because they are priority habitats for conservation. In a later publication (UK Biodiversity Group, 1998), the number of terrestrial and freshwater Broad Habitats was reduced to 17. Limestone pavements were included in the Broad Habitat inland rock. Ten coastal and marine Broad Habitats were added shortly afterwards (UK Biodiversity Group, 1999). Out of the 27 Broad Habitats, 21 support vascular plants (see Table 8, above).

Broad Habitats are intended to be comprehensive and exclusive. In other words, every place in which a vascular plant is found ought to belong to one and only one Broad Habitat. Although the definitions of Broad Habitats are in many cases obvious, there was a need for more precise circumscription to define the boundaries between them. For terrestrial and freshwater habitats this guidance is now available (Jackson, 2000). The guidance not only gives written definitions, but relates Broad Habitats to the units of the National Vegetation Classification (NVC; Rodwell, 1991-2000).

Jackson's (2000) notes for guidance are the basis of the cross-reference and definitions used here (Table A4). In a small number of cases, we have diverged from her interpretations. The basis of our disagreement was often the scale at which we wished to view the vegetation. Thus we have treated bog pools as strictly bog features (not as open water) and we treat rock-free maritime grassland as neutral grassland (not as supralittoral rock). Other interpretations are possible but result in floristically less homogeneous Broad Habitats.

Table A4. Assignment of NVC communities to Broad Habitats for the purpose of ascribing habitat preferences. Sequential runs of numbers are indicated by hyphens, e.g. 21-23, which signifies the sequence 21,22,23. Some NVC communities were assigned to two Broad Habitats; where this is the case, the community is marked by an asterisk, to show that it is also listed under another Broad Habitat.

No	Name	NVC communities
1	Broadleaved, mixed and yew woodland	**W**1-17,19
2	Coniferous woodland	**W**18
3	Boundary and linear features	**W**21-23,24*; **OV**18*,19*,21*,22*,24*,25*,27
4	Arable and horticultural	**OV**1-11,13,14-17,18*,19*,21*,22*,36
5	Improved grassland	**MG**6*,7; **OV**12,23*,25*
6	Neutral grassland	**W**24; **MC**9-12; **MG**1-5,6*; **MG**8-13; **OV**28*
7	Calcareous grassland	**CG**1-14
8	Acid grassland	**U**1- 6,19
9	Bracken	**U**20; **W**25
10	Dwarf shrub heath	**H**1-10,12,16,18,21; **M**15*,16; **OV**34
11	Fen, marsh and swamp	**M**4-14,22-24,25*,26-38; **S**1-19,20*,22-28; **OV**26,28*,29-
12	Bog	**M**1-3,15*,17-21,25*
13	Standing water and canals	**A**1-7,8*,9*,10,(11-16)*,19*,20*, 21-24
14	Rivers and streams	**A**8*,9*,(11-16)*,17,18,19*,20*
15	Montane habitats	**H**13-15,17,19,20,22; **U**7-15,18; **W**20
16	Inland rock	**U**16,17,21; **OV**37-40,41*
17	Built-up areas and gardens	**OV**20,23*,24*,41*,42
18	Supralittoral rock	**MC** 1-8
19	Supralittoral sediment	**H**11; **SD**1-19
21	Littoral sediment	**S**20,21; **SM**1-28

It is pertinent here to consider the definitions, drawing attention to less obvious features and to where we have differed from Jackson (2000).

BH1 Broadleaved, mixed and yew woodland
Broadleaved woodland is defined as woodland with broadleaved trees having at least 20% canopy cover. In practice, most woodland has closed canopy. Juniper scrub is included in this type if it is large enough to result in a woodland understorey (W19). Other scrub types are treated as edge features (BH3), because hedges are often where they occur. The underscrub community W24 is shared between woodland (BH1) and neutral grassland (BH6).

BH2 Coniferous woodland
This category is clearly defined and corresponds to native pine woodland (W18) in the NVC. Stands of planted conifers normally have a subset of the normal broadleaved woodland flora growing under them. There is no corresponding NVC type. Planted conifers have therefore been under-represented, and the fern *Dryopteris dilatata,* which is the commonest vascular plant in upland conifer plantations, did not appear as a conifer specialist in our floristic database, but its preference was added by us later.

BH3 Boundary and linear features
Apart from scrub that forms hedges, boundary and linear features are not directly cross-referenced to the NVC. They include hedges, tree-lines, walls, earth banks, grass strips and dry ditches. Note that roads, tracks and railways in urban areas belong to the urban BH17.

BH4 Arable and horticultural
Commercial orchards are included here, as well as field crops. Note that horticulture here is defined as commercial horticulture and does not include domestic gardens and allotments, which are included in BH17. The NVC communities classified as OV1-11,13-19,21,22,36 are included here.

BH5 Improved grassland
This has few characteristic species, and is typically dominated by sown ryegrass *Lolium perenne* or clover *Trifolium repens.* OV12, the *Poa annua-Myosotis arvensis* community, is indicated in *British Plant Communities* (Rodwell, 1991-2000) as being mainly a disturbed element in improved pasture and has been included here.

BH6 Neutral grassland
The mesotrophic grassland types MG1-6,8-13 are the core of the neutral grassland category. Coastal grazing marsh is included here. Four of the coastal cliff grasslands, MC9-12, are not necessarily or normally rocky and have been included here in BH6. OV28, an inundation grassland, is shared between BH6 and BH11.

BH7 Calcareous grassland
By convention, this includes all NVC types included in the CG class. As a result, montane calcareous vegetation is in BH7, along with chalk grassland.

BH8 Acid grassland
Only lowland and subalpine grassland are included here; vegetation types that would normally be found above the timberline are in BH15. Communities U1-6 form the core of this type. The fern community U19 is treated in BH8. It is usually a mosaic element in grassland, though it also occurs on steep banks by rivers and could therefore be included also in the broad definition (not used here) of BH14.

BH9 Bracken
This is small type, defined as unwooded land dominated by bracken *Pteridium aquilinum*. BH9 has few characteristic species, because it is usually a derivative of grassland or forest. Just two NVC types, U20 and W25, are included here.

BH10 Dwarf shrub heath
The heath type BH10 includes vegetation with at least 25% cover of Ericaceae or dwarf gorse *Ulex minor*. Coastal heath is included in this category, except for dune heath, which is assigned to BH19. Dwarf shrub communities on blanket bogs are strictly included in BH12, but this is a relatively minor habitat for them and has not been recognized in the cross-reference. The standard heathland communities H1-10,12,16,18,21, together with the wet heath communities M15,16 form the core of this community. The bizarre OV34, a chive *Allium schoenoprasum* community forming a mosaic element on shallow soils in coastal heath, is included here.

BH11 Fen, marsh and swamp
This is a very wide category and includes reedbeds, swamps, tall-herb fens, flushes, springs, marshes, rush-pastures and wet grassland. Mud communities of dried-up ponds and riverbeds (e.g. OV30) have been included here, although they belong more strictly to BH13 and BH14 unless they are very extensive (>0.25 ha). Types M4-14,22-38, all swamp communities except *Scirpus maritimus* S21, and OV 26,28-33,35 are included. We have excluded the bog-like communities *(Erico-Sphagnion)* that are found in very acid lowland valley-mires.

BH12 Bog
Bogs are defined strictly only as ombrotrophic bogs. However, we have lumped all *Erico-Sphagnion* vegetation, including M21, in BH12 even if it the vegetation occurs in valley mires, together with bog pool vegetation M1-3. This is to prevent the characteristic species of BH11 being too heterogeneous. The NVC types included are M1-3,15,17-21,25.

BH13 Standing water and canals
Only aquatic vegetation has been cross-referenced to this type, i.e. communities A1-16,19-24. Mud communities and marginal vegetation are referred to BH11.

BH14 Rivers and streams
This Broad Habitat is treated in much the same way as BH13. According to the strict definition, all vegetation between the banks of a river counts as belonging to BH14. For the purposes of defining characteristic species, river-bank vegetation has been treated as belonging to other types such as inland rock. Thus the communities included in BH14 are A8,9,11-20. Several of these communities are also characteristic of BH13.

BH15 Montane habitats
This type is defined by having distinctive arctic-alpine species, provided that they are not calcicolous. Calcareous montane vegetation is included in BH7. BH15 includes montane heaths H13-15,17,19,20,22, grassier types U7-15,18, and a willow scrub type W20.

BH16 Inland rock
This heterogeneous Broad Habitat includes limestone pavement, cliffs, caves, scree, quarries and vegetation on skeletal soils over rock. Communities U16,17,21 and OV37-41 are assigned to BH16.

BH17 Built-up areas and gardens
Urban habitats were largely ignored by the NVC surveyors. Most of the characteristic species are neophytes, while the commonest species are widespread natives and archaeophytes (Hill, Roy

& Thompson, 2002). Very few NVC communities are really characteristic of the built environment. Pavement and wall communities OV20,42 are assigned wholly to BH17; OV23,24,41 are assigned to BH17 but shared with other Broad Habitats.

BH18 Supralittoral rock
It is clear from the Habitat Statement for supralittoral rock (UK Biodiversity Group, 1999) that maritime grassland is not included. For that reason, MC9-11,12 have been treated as neutral grassland, BH6. Only MC1-8 are included in BH18.

BH19 Supralittoral sediment
This includes strandlines, shingle, machair and coastal dunes. It includes all the NVC types SD1-19, together with the dune heath type H11.

BH20 Littoral Rock
Intertidal rock normally lacks vascular plants and no vascular-plant species or vegetation type is characteristic of it.

BH21 Littoral sediment
This includes saltmarshes and saltmarsh pools.

BH23 Inshore sublittoral sediment
One vascular plant, *Zostera marina*, occurs in this habitat, which is not considered further.

Initial calculation of species' preferences for Broad Habitats
For the majority of species, habitat preferences were based on quadrat data. Two major datasets were available, the original data used to derive the association tables in *British Plant Communities* (NVC; Rodwell, 1991-2000) and quadrat samples collected for Countryside Survey 2000, CS2000 (Haines-Young *et al.*, 2000).

The quadrat data used to create the NVC categories were supplied by JNCC as an MS Access database. This had been created from files in the format of the VESPAN package (Malloch, 1985). There was no information on the NVC community to which each quadrat had been assigned. Therefore, the computer program TABLEFIT (Hill, 1996) was used to assign 31216 quadrats to NVC communities using species' Domin scores. The median goodness-of-fit was 67%. Only four samples had no fit; these were assigned to a community by personal judgement. NVC plant communities were then attributed to Broad Habitats using the cross-reference outlined above (Table A4). All CS2000 samples had been allocated to BAP Broad Habitat types in the field.

After quadrats had been assigned to Broad Habitats, species' frequencies in each Broad Habitat were calculated. Frequencies were used to calculate preferences for Broad Habitats. For each species s and BH *h*, we calculated an odds-ratio index:

Q_{sh} = observed odds for species s in habitat h / expected odds

$$\left(\frac{n_{sh} / (n_{s+} - n_{sh} + 0.5)}{e_{sh} / (n_{s+} - e_{sh})} \right)$$

where

n_{sh} = observed number of occurrences of species s in BH *h*

$n_{s+} = \Sigma_h n_{sh}$ = total number of occurrences of species *s*

e_{sh} = expected number of occurrences of species s in BH *h*.

The expected number of occurrences

$$e_{sh} = n_s N_h / N_+$$

where

N_h = number of quadrat samples in BH h

$N_+ = \Sigma_h N_h$ = total number of quadrat samples.

Species s was deemed to have a preference for BH h if

$$Q_{sh} > 4.$$

Extension and validation of species' preferences

Many rare, scarce or uncommon native species are not represented either in the NVC quadrats or in CS2000 samples. Furthermore, there was the possibility that uneven sampling of Broad Habitats could have resulted in some wrong indications of preference.

First, we extended the list of BH preferences to species not adequately sampled by the NVC or CS2000, using the text prepared for the *New Atlas*, together with other literature sources (e.g. Stewart, Pearman & Preston, 1994; Wigginton, 1999). Much of the initial work was done by Bill Meek (CEH); the resulting table of preferential species was checked by D.A. Pearman (BSBI), as well as by ourselves and other CEH staff. In addition, preferences were checked against other data in PLANTATT. For example, species attributed to BH13 (Standing water and canals) and BH14 (Rivers and streams) were checked for their Ellenberg moisture (F) values. Those for which F<8 were scrutinized carefully. Some were excluded from the list of characteristic species of these Broad Habitats.

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